Site Descriptions

For Hazardous Waste Sites
In New Jersey

1984/85
N.J. Department of Environmental Protection
Division of Waste Management • Hazardous Site Mitigation Administration
SITE DESCRIPTIONS

For

HAZARDOUS WASTE SITES

In

NEW JERSEY
These descriptions of hazardous waste sites in New Jersey include the 97 New Jersey sites on the National Priorities List (Superfund sites) as of the summer of 1985, as well as 69 other hazardous waste sites in the State.

The status of the sites is in flux and the information given is at the date indicated on the bottom of each site description. This includes the given National Priorities List (NPL) ranking which can change with the addition of new sites to the NPL by the U.S. Environmental Protection Agency.

These site descriptions are provided without prejudice, for informational purposes only, and should not be relied on in any administrative or judicial proceeding.

October 1985
Glossary of Terms

Administrative Consent Order (ACO): A binding legal document between a government agency and a responsible party. It is issued by the government in the form of an order that specifies site mitigation activities to be undertaken by the responsible party.

Contract: The legal agreement that outlines federal and state government responsibilities at USEPA-lead sites on the National Priorities List (Superfund sites) as authorized by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Cooperative Agreement: An agreement whereby USEPA transfers funds and other resources to a state for the accomplishment of certain remedial activities at sites on the National Priorities List (Superfund sites) as authorized by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Engineering Design (Remedial Design): Following a feasibility study, an engineering design is executed to translate the selected remedy in accordance with engineering criteria in a bid package, enabling implementation of the site remedy.

Focused Feasibility Study (FFS): A limited feasibility study which is performed on a certain aspect of site remediation and/or when more than one remedial measure is considered technically viable for the immediate control of a threat.

Immediate Removal Actions (IRAs): Actions taken to prevent or mitigate immediate and significant risk to human life, health or to the environment.

Initial Remedial Measures (IRMs): Actions that can be taken quickly to limit exposure or threat of exposure to a significant health or environmental hazard at sites where planning for remedial actions is underway.

Monitoring Well: A well installed under strict design specifications that, when sampled, will reveal hydrogeologic data at its point of installation. Monitoring wells are installed at predetermined locations, usually in groups, to gain knowledge of site conditions including: extent and type of ground water contamination, soil types, depth to ground water and direction of ground water flow.

National Contingency Plan (NCP): The basic policy directive for federal response actions under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). It sets forth the Hazard Ranking System and procedures and standards for responding to releases of hazardous substances, pollutants, and contaminants. The NCP is a regulation subject to regular revision.

National Priorities List (NPL): A list of the highest priority releases or potential releases of hazardous substances, based upon
State and U.S. Environmental Protection Agency (USEPA) Regional submissions of candidate sites and the criteria and methodology contained in the Hazard Ranking System (HRS), for the purpose of allocating funds for remedial response under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Published by the USEPA, the NPL is updated periodically. Sites on the NPL are commonly called Superfund sites.

NJDEP: New Jersey Department of Environmental Protection.

NJDEP's Management Plan for Hazardous Waste Site Cleanups: The New Jersey plan used to develop a work schedule and a systematic approach to remedial action at hazardous waste sites and discharges of hazardous materials which pose a threat to public health or the environment.

Remedial Action: (e.g., Removal/Treatment/Construction) The physical action consistent with the selected remedy for a release or threatened release of a hazardous substance into the environment. The term includes, but is not limited to such actions as removal, storage, confinement, protection using dikes, trenches, ditches, slurry walls, clay cover, neutralization, cleanup of released hazardous substances or contaminated materials, recycling or reuse, diversion, destruction, segregation of reactive wastes, dredging or excavations, repair or replacement of leaking containers, collection of leachate and runoff, on-site or off-site treatment or incineration, provision of alternate water supplies, and monitoring required to assure that such actions protect public health and the environment.

Remedial Investigation/Feasibility Study (RI/FS): The Remedial Investigation (RI) portion of a RI/FS in remedial planning involves a physical and other investigation to gather the data necessary to determine the nature and extent of problems at the site; establish remedial response criteria for the site; and identify technical and cost analyses of the alternatives. The Feasibility Study (FS) portion of a RI/FS in remedial planning involves a study to evaluate alternative remedial actions from a technical, environmental, and cost perspective; recommend the most effective remedy for adequate protection of human health and the environment; and prepare a conceptual design, cost estimates for budgetary purposes, and a preliminary implementation schedule for that action.

Responsible Party: Any person who has discharged a hazardous substance or is in any way responsible for any hazardous substance which the NJDEP has removed or is removing pursuant to the New Jersey Spill Compensation and Control Act and/or the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Spill Compensation Fund: The Spill Compensation Fund was created in 1976 with enactment of the Spill Compensation and Control Act and became effective on April 1, 1977. It provides compensation to qualified individuals and businesses that have suffered damages as a result of a discharge of hazardous substances.

USEPA: United States Environmental Protection Agency.
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Site Name
A.O. Polymer Corporation
44 Station Road
Sparta Township
Sussex County

Site Description
This is an active chemical manufacturing facility located on a four acre tract of land near the Wallkill River, one mile from the center of Sparta Township. Adjacent to the site are the township high school, a new township park, a gun club, and several private potable wells.

Environmental Impact
During the 1960s and 1970s previous owners disposed of much of their waste chemicals by dumping them into a pit and backfilling. Buried drums were crushed or opened prior to burial and the site was littered with numerous leaking drums in various stages of deterioration.

N.J. Department of Environmental Protection (NJDEP) investigations documented the contamination of the soil, surface water and ground water near the chemical plant. Even after an extensive clean-up program in 1980-1981, which included the removal of 600 drums and the excavation and removal of approximately 2,800 tons of hazardous waste and contaminated soil, the ground water remains severely polluted. At this time, the contaminated plume appears to be moving in a direction away from the town. It is possible that the Wallkill River may intercept the contaminated water in both the upper and lower water bearing zones.

There is also concern about air pollution associated with the A.O. Polymer manufacturing process.

Status
From July 15, 1980 until August 20, 1980 the NJDEP expended $537,353.73 from the N.J. Spill Fund in order to conduct the drum removal and soil excavation program. In addition, Sparta Township financed the extension of a municipal water line to three neighboring residences whose wells were contaminated. The N.J. Spill Fund is presently processing a township claim for compensation for these expenses in the amount of $47,000.

The additional cost of a monitoring program brings the NJDEP total expenditure to date to $614,000. A lien was placed against A.O. Polymer Corporation in July, 1984 as an initial step in recouping these expenditures.

Of 97 New Jersey sites on the National Priorities List, the A.O. Polymer Corporation is ranked 94th.
Site Name

A-Z Chemical Resource Recovery, Inc.
New Brunswick
Middlesex County

Site Description

This ten-acre commercial facility is located at the end of Triangle Road. The site formerly contained nine bulk storage tanks and approximately 8,000 drums. Three buildings exist on site including one large abandoned cement factory and two smaller buildings. The area is partially fenced and has been inactive since its closure in 1978.

Environmental Impact

The nature of chemicals stored on site presented the potential for fire and explosion which could have produced toxic fumes. Some of these chemicals were stored in drums that had been dumped in an unregulated, random fashion and were unprotected from the weather. Soil contamination is evident.

Crushed, rusted and leaking drums posed a serious threat of contamination to surface water and ground water. The installation of four ground water monitoring wells and subsequent sampling showed that elevated levels of lead and phenols are present. Spill controls are preventing surface water migration off site.

Mile Run Brook is the closest surface water to the site and is a tributary to the Raritan River. Ground water at the site is from 3 to 7 feet below the surface.

Status

The New Jersey Department of Environmental Protection (NJDEP), using revenues from the Spill Compensation Fund, removed 6,544 drums from the site. The remaining drums are not thought to present a threat. Approximately 10,000 gallons of bulk fluids and their tanks and 360 cubic yards of contaminated soil were also removed. Surface cleanup as of May 1981 was 95 percent complete. Periodic ground water sampling from monitoring wells and soil sampling continue to determine if site contamination exists and to serve as a basis for additional remedial actions if required. The NJDEP is currently awaiting results from recent tests. Additional monitoring wells are needed to evaluate a shallow perched water table underlying the site.

Court action is being pursued against responsible parties as a method of recovering monies spent under the New Jersey Spill Compensation Fund.

A-Z Chemical Resource Recovery site is included in NJDEP's Management Plan for hazardous waste site cleanups and it will be addressed with additional state funds if necessary.

3/85
Site Name

Albert Steel Drum Company
Newark
Essex County

Site Description

The Albert Steel Drum Company site is located at 338 Wilson Avenue, south of the Wilson Avenue Bridge and east of Avenue L. This is an abandoned drum dump with drums both buried and on the surface. Due to non-payment of back taxes, site ownership was assumed by the Newark Redevelopment and Housing Authority. Presently a section of the building is leased to the Vitamin Company of Welch, Holme, Clark and Prentiss. An unknown number of drums with chemicals are scattered throughout the site. During a New Jersey Department of Environmental Protection (NJDEP) site inspection in 1979, piles of greyish powder were observed throughout the site and in plastic bags labeled "Troysan-Mercury Acetate-Poison-subject to bacterial decomposition".

Environmental Impact

On-site sampling has revealed the presence of volatile organic chemicals, heavy metals and pesticides. Analysis of the grey solid substance indicated the presence of mercury.

The banks of Pierson's Creek (Peirson's Creek traverses the property) show evidence of the underground disposal of drums containing chemical waste.

Status

The current and previous site owners have entered into a Consent Agreement with NJDEP for the payment of site investigations. The Albert Steel Drum Company is included in NJDEP's Management Plan for hazardous waste site cleanups and it will be addressed with State Funds, if necessary.
Site Name
American Cyanamid Company
Bridgewater Township
Somerset County

Site Description
The American Cyanamid Company site is a 575 acre active industrial facility adjacent to the Raritan River and the Elizabethtown Water Company. The facility encompasses a number of individual disposal sites that include 27 lagoons, both active and inactive, and inactive landfills. Approximately 800 chemicals, including dyes and textile chemicals, organic pigments, rubber chemicals, pharmaceuticals and intermediate chemicals are produced. During the company's more than 50 years of operation here, an unknown quantity of chemical wastes were buried at the site. The company uses unlined lagoons for treatment and storage of wastewater and sludges. Sludge lagoons were allowed to reach their capacity and were then covered. An incinerator was put into operation in 1979 for the disposal of newly produced sludge.

Environmental Impact
The lagoons are a potential source of ground and surface water contamination due to percolation and mixing with storm water. The ground water beneath the site is severely contaminated with organic chemicals. The potential spread of contamination into nearby wells and surface water is of concern. The Elizabethtown water supply intake is within 2,000 feet of American Cyanamid's settling lagoon. There are also at least 20 private wells in the immediate area. Ground water here is part of the Brunswick Aquifer and is the State's second largest source of drinking water.

Data contained in American Cyanamid's monitoring status report, filed April 30, 1982, has indicated that the effectiveness of the pumping of Cyanamid's Ground Water Control System has prevented offsite migration of contaminants. To date, over 150 monitoring wells have been installed.

Status
The New Jersey Department of Environmental Protection (NJDEP) entered into an Administrative Consent Order (ACO) with American Cyanamid effective January 1, 1982. The agreement requires Cyanamid to maintain a ground water pumping rate at a level sufficient to prevent offsite contamination migration, and to perform site evaluation. The program specified in the agreement is spread over a five year period. Cyanamid has submitted reports required by the NJDEP in a timely manner and has completed other remedial actions specified in the ACO. Amendments to the ACO have been issued in an on-going manner to facilitate scheduled progress and to include necessary actions. The company has proposed modification to current waste storm water source and collection control, and has been given conceptual approval. Ditch and sewer rehabilitation have been completed with the installation of vitreous tile pipe and connection to the plants sewer system. In accordance with the ACO, American Cyanamid is planning to remove waste materials from two lagoons by January 1987. They have submitted to NJDEP plans to remediate four lagoons that are probable sources of ground water contamination and four lagoons in compliance with the RCRA program. Total cleanup cost is estimated from 20 to 30 million dollars. Of 97 New Jersey sites on the NPL, the American Cyanamid Company site is ranked 26th.
Site Name

Arky Property
Route 520
Marlboro Township
Monmouth County

Site Description

The Arky Property was formerly used for the illegal disposal of hazardous wastes from tank trucks and 55-gallon drums which were emptied or buried. Presently, there are numerous decaying 55-gallon drums, sludges, tires, junk and debris on site.

Environmental Impact

High levels of ethyl benzene, methylene chloride, toluene, and trichloroethylene have been detected in the soil and the drum contents. Air monitoring has indicated contamination in the vicinity of the buried drums. The possibility of ground water contamination currently exists. The site is underlain by an aquifer which is a major source of potable water in the area.

Status

In April, 1982 the property owner was sent a directive letter to clean up the site. Since no action has been taken by the owner, the case has been referred to the New Jersey Attorney General's Office for future enforcement actions.
Site Name

Arthur Gundaker
Monroe Township
Middlesex County

Site Description

This 4-acre site is located on Spotswood-Englishtown Road in rural Monroe Township. It was originally owned by Arthur Gundaker who resided on this property and operated a nursery/landscaping business from 1962 to 1981. It has been alleged that chemical liquids were dumped from 55-gallon drums at the rear of the property along with empty and partially filled pesticide and herbicide containers.

The terrain of this area is characterized by rolling hills with a steep slope east from the site. The property is located on the edge of a small ridge and, in general, the site is higher in elevation than the surrounding topography. Several small orchards and greenhouses are in this area indicating agricultural land use.

Environmental Impact

An inspection of this site by the New Jersey Department of Environmental Protection (NJDEP) on August 10, 1984 revealed the presence of two rusted 55-gallon drums among domestic debris at the rear of this property. Soil samples taken during this inspection revealed high levels of organic and heavy metal contamination. Contaminants found include chloroform, benzene, ethylbenzene, toluene, 1,1,1-Trichloroethane, cadmium, chromium, lead and mercury.

Due to slope conditions at the dump site there is the high potential for contaminant migration. Seepages from the dump area may threaten nearby surface waters and create the potential for direct contact as demonstrated by the presence of contaminants in the soil samples.

Subsurface migration of contaminants may also threaten the underlying Englishtown Aquifer. Drinking water within a three-mile radius of the site is supplied by public and private wells. Some of the private wells are shallow and are located as close as 200 feet from the dumping area. The Spotswood and Manalapan Brooks are within 1.5 miles of this site and are the major surface waters in the area. A small intermittent stream runs through a ravine located at the rear of the site where it is alleged that wastes were disposed of. Ground water in this area is drawn from the Englishtown Sands formation which is underlain by the relatively impermeable Marshalltown Formation.

Status

Acting upon past employee allegations that illegal dumping of chemical wastes occurred at this property, the NJDEP conducted a Preliminary Assessment of the conditions and incidents at this site on August 10, 1984. As a result, the NJDEP has begun further investigations in the form of soil and potable well sampling. Subsequently, the site has been submitted to the United States Environmental Protection Agency (USEPA), Region II, on July 9, 1985 for Superfund consideration. The Arthur Gundaker site is included in NJDEP's Management Plan and will be addressed with state funds, if necessary.

9/85
Site Name
Asbestos Dump
Passaic and Harding Townships
Morris County

Site Description

The Asbestos Dump consists of four separate sites: a primary site associated with asbestos shingle production and waste disposal and three secondary sites of asbestos shingle disposal which are related to the primary site. The primary site is located in Millington and consists of a large mound 20-30 feet high immediately adjacent to the Passaic River. This mound is the result of years of random dumping of asbestos-laden sediments by several asbestos processing companies, beginning in 1927. The other three secondary sites are located near the town of Meyersville which is approximately four miles to the northeast. These sites include two driveways and a natural trail in the Great Swamp Wildlife Refuge area constructed with pieces of asbestos shingles.

Environmental Impact

Ground water, surface water and soil contamination are all of concern at this site. In the past the soil cover of the mound had been worn away by erosion and weathering, leaving areas of the asbestos-filled slopes exposed. The adjacent Passaic River is used as a source of potable water by the Commonwealth Water Company, located 10 miles downstream from the site. In addition, allegations have been made that chemical wastes, including phenylmercuric acetate, have been disposed of at this site.

Status

State and Federal monitoring of conditions at the site date back to 1971 when the National Gypsum Company, which had purchased the property in the early 1950s, applied for a permit to discharge process waste water to the Passaic River. Water conservation and pollution control equipment was installed and in April, 1974 the final permit was issued requiring construction of additional treatment facilities and upgrading of the existing settling lagoons. Inspection in January, 1975 revealed two process water discharges, one from the asbestos processing operation and the second from a paint wash line discharging into an unlined lagoon. The Company initially proposed installation of a total recycling system to eliminate discharge, but subsequently decided to close the Millington plant permanently, citing economic considerations and environmental constraints. In 1976, the property was sold to TIFA, Ltd., a pesticide equipment manufacturing company.

Complaints about exposed asbestos waste, as a result of erosion, and concern about potential pollution of the Passaic River, led to the issuance of an Administrative Order to the National Gypsum Company by the New Jersey Department of Environmental Protection in February, 1978. The Company was required to cover the exposed material and to submit a long-term plan for site remediation. The mound was subsequently covered with soil and seeded, the river bank was stabilized with riprap, and lagoons used in waste water treatment were covered and regraded into the landscape.

A scope of work detailing the activities to be undertaken in the Remedial Investigation/Feasibility Study has been completed and the United States Environmental Protection Agency is currently negotiating with the responsible parties to perform this study.

Of 97 New Jersey sites on the National Priorities List the Asbestos Dump is ranked 62nd.
Site Name

Ashland Chemical Company (Division of Ashland Oil Company)
Woodbridge Township
Middlesex County

Site Description

The Ashland Chemical Company site is located on Meadow Lane in the town of Fords. Although Ashland Chemical Company was sold and the facility is presently operated by the Sherwin-Williams Company, Ashland Chemical still owns the landfill property and remains the responsible party. It is located in a remote wetland area behind an industrial park. The primary area of concern is an abandoned landfill that was used by Ashland Chemical Company until 1974 to dispose of or process waste during the manufacturing of phenolic resin. Trace amounts of solid waste were subsequently identified as gelled phenolic resin. It is alleged that the landfill was used for dumping bad batches of product. The landfill also contains numerous 55-gallon drums containing unidentified chemicals. Unlined pretreatment chemical waste lagoons were used to store hazardous waste water which was then discharged to the Middlesex County Sewage Authority.

Environmental Impact

There is potential contamination of soil, ground water and surface water. Monitoring wells at the landfill indicate high levels of contamination. A sewer line for the Middlesex County Utility Authority runs underground adjacent to the site and it is not known whether the sewer would be affected by possible contaminants leaking from the landfill.

Although vegetation is abundant on site, there are bare areas on top of the landfill. The landfill is situated approximately 2,700 feet away from the Raritan River, with ground water flowing in a southerly direction toward the river.

Status

In May 1979, Ashland Chemical Company and the New Jersey Department of Environmental Protection (NJDEP) reached an agreement in which Ashland Chemical would implement a pollution abatement program. This program includes: measures to contain chemical spillages and improve on-site conditions; characterization of Ashland's waste water discharge to the Middlesex County Sewage Authority (MCSA); a plan to eliminate the unlined pretreatment lagoons and the disposal of sludges and contaminated soil; and a detailed proposal for a pretreatment system designed to limit the discharge of toxic or hazardous substances (for which MCSA can not provide treatment prior to discharge) into MCSA's system. Ashland Chemical Company is included in NJDEP's Management Plan for hazardous waste site cleanups.
Site Name
Barrier Chemical Industries
Route 515
Vernon Township
Sussex County

Site Description
This site was formerly used as a chemical formulation plant to produce degreasers, sewer cleaners, soaps, disinfectants, insecticides and floor waxes during the years 1961 to 1975. In 1975 these manufacturing operations were relocated to a facility in Port Jervis, New York. Since that time the Vernon Township facility has served as a warehouse to store intermediate chemicals used in the company's manufacturing processes.

The property consists of a two-acre tract of land adjacent to a wetlands area and approximately 1,200 feet from the Wawayanda Creek which is used for recreation and as a source of drinking water for livestock. It has been reported by neighbors that the company dumped chemicals directly onto the ground for several years prior to cessation of manufacturing operations.

Environmental Impact
Soil, surface water and ground water contamination are all of concern at this site.

Soil sampling conducted by the New Jersey Department of Environmental Protection (NJDEP) in 1978 revealed the presence of high concentrations of several volatile organic compounds, including 800 parts per million (ppm) of benzene and 3,500 ppm of trichloroethylene. In 1979, analysis of monitoring well samples also revealed the presence of trichloroethylene at the levels of 30-300 parts per billion (ppb). Neighboring residents dependent on private wells have continuously complained that their wells have been affected, but, to date, sampling results have been questionable.

The company has removed several drums containing hazardous waste from the site, but contaminated soils remain and the NJDEP suspects that underground storage vessels may also contain hazardous materials.

Status
A limited sampling program has been proposed to provide data for a current site evaluation. Future action will depend on the results of this investigation.
Site Name

Beachwood Borough/Berkeley Township Wells
Beachwood Borough and Berkeley Township
Ocean County

Site Description

For the purpose of future study, the site consists of the entire Borough of Beachwood and the Township of Berkeley. To date, investigations conducted by both the New Jersey Department of Environmental Protection (NJDEP) and the Ocean County Health Department have concentrated on an approximate 10 square-mile area bordered by Toms River on the north, Cedar Creek to the south, the Garden State Parkway to the west, and Route 9 to the east. This study area includes the southeast section of Beachwood Borough and the Pinewald section of Berkeley Township. To date, 601 potable wells in Beachwood Borough and 932 potable wells in Berkeley Township have been sampled to determine the extent of lead contamination in this area. The results of more than 1,700 analyses indicate that 15% of the wells sampled in Beachwood and 3% of the wells in the Pinewald section of Berkeley Township exceeded the Interim Primary Drinking Water Standard for lead (0.05 mg/l).

Environmental Impact

The source of the contamination is unknown. The major source of potable water for the surrounding area is the Cohansey Aquifer. The homes supplied by domestic wells where lead contamination was found are being supplied with alternative water on an emergency basis.

Status

An Administrative Consent Order was signed between NJDEP and Beachwood Borough on May 4, 1983 requiring the Borough to extend their potable water supply to service all homes in the Borough east of the Garden State Parkway which are presently not serviced. This work has been completed.

In January 1984, the NJDEP signed a Cooperative Agreement with the United States Environmental Protection Agency (USEPA) to commit $632,540 for a Remedial Investigation/Feasibility Study (RI/FS). The purpose of the RI/FS is to: investigate the presence of hazardous substances including lead which has previously been confirmed in potable wells located in Beachwood Borough and Berkeley Township at levels exceeding Interim Primary Drinking Water Standards; develop and evaluate remedial alternatives to determine the most environmentally sound and cost-effective remedial actions to be undertaken in the two communities. NJDEP awarded a contract to conduct the RI/FS to an engineering firm in August, 1984. Presently, the RI/FS is expected to be completed by December, 1985.

Of 97 New Jersey Sites on the National Priorities List, the Beachwood/Berkeley Wells site is ranked 54th.

3/85
Site Name

Bel-Ray Company, Inc.
Wall Township (Howell Township)
Monmouth County

Site Description

The Bel-Ray Company site, located on Bowman Road, encompasses approximately 29 acres in a semi-residential area. The company, which has been in operation for about 25 years, manufactures petroleum and synthetic-based specialized lubricants. In the past, Bel-Ray manufactured oils and lubricants which contained polychlorinated biphenyls (PCBs). During the company's operating history, the facility accumulated an undetermined number of drums that contain waste solvents, waste oils and off-spec products. These drums are stacked on their sides for storage on site. Some of the drums have developed leaks causing the contents to spill directly onto the ground. The site also has approximately 38 above-ground oil and solvent storage tanks with capacities ranging from 1,000 to 20,000 gallons. Only some of these tanks are diked. In addition, the facility has an unlined storage lagoon with a 125,000 gallon capacity which collects rain water used for cooling. This lagoon also collects oil-contaminated runoff, as well as process spillages which occur both inside and outside of the building. Currently the only treatment that the waste water receives is from a small belt skimmer which is not satisfactory for a lagoon of this size.

Environmental Impact

The limited number of samples collected indicate that there is contamination of ground water, as well as surface water from the unlined lagoon. Analysis of the waste water in the lagoon revealed benzene, toluene, PCBs and chloroform. The unlined lagoon discharges via a pipe through a marshy area into Jumping Brook, a tributary of Shark River. Unreported spills and overflows from the lagoon have occurred. Remnants of oil have been observed in the woods and in the marshy area past the discharge pipe. Due to the drum storage problem, there is potential for a wide array of chemicals to contaminate surface soils and subsurface ground water. Analysis of soils on site and downstream of the site have indicated PCB contamination.

Status

This case was referred to the United States Environmental Protection Agency (USEPA) by the Monmouth County Health Department. In January 1981 the USEPA completed a Field Investigation Team report. In February 1982 the USEPA and the Bel-Ray Company entered into an Administrative Consent Order (ACO) to implement specific remedial activities. Pursuant to the ACO, the company has removed contaminated sediments from the lagoon and stream. The New Jersey Department of Environmental Protection (NJDEP) is directing the drum removal. Presently, this site has been placed on NJDEP's Management Plan for hazardous waste site cleanups.
Site Name

Berry's Creek (Morton-Thiokol/Velsicol)
(Formerly known as Ventron/Velsicol)
Wood-Ridge, Carlstadt, Moonachie and East Rutherford Boroughs
Bergen County

Site Description

The site encompasses 40 acres in the Hackensack Meadowlands, just east of Carlstadt on the western bank of Berry's Creek. From 1929 until 1974 a mercury processing plant was operated on the site by the following companies: F.W. Berk & Co. (1929-1960); Wood Ridge Chemical Co. which is a subsidiary of Velsicol Chemical Corp. (1960-1968); and Ventron Corp.* (1968-1974). The mercury processing facilities occupied 7 acres; the remaining 33-acre tract of marshland, presently owned by Velsicol Chemical Corp., was utilized to landfill waste spoils from the plant operation. In 1974, the 7-acre tract was bought by a realty company that demolished the processing facilities, excavated the mercury contaminated top soil, partly entombed the site, and constructed two industrial warehouses on the site. Records are scant or nonexistent for much of the operating history of the facility. It is known that plant operations included the refining of metallic mercury and the production of various amalgams, inorganic mercury compounds and phenyl mercuric salts. Estimates of the amount of mercury contamination range from 50 tons to 400 tons.

Environmental Impact

The mercury contamination has spread throughout the Berry's Creek ecosystem including the sediments of the creek for a stretch of several thousand feet downstream of the site and the contiguous wetlands. Although the mercury is considered stable at this time, the potential exists for its mobilization and release into the environment resulting in aquatic and terrestrial organism bioaccumulation. Ultimately, this bioaccumulation could pose a human health threat.

Status

In 1976, the New Jersey Department of Environmental Protection (NJDEP) initiated legal action against Ventron, Velsicol, et. al. for their part in the long-term mercury contamination of the Berry's Creek ecosystem. The State has been successful in litigating this case including appeals through the New Jersey Supreme Court relative to the liability of Ventron and Velsicol for the cost of the cleanup and removal of the mercury-contaminated sediments in Berry's Creek. Ventron and Velsicol Chemical Corporations requested that the State consider cooperating in a joint investigation of the site which would be funded by both companies. In January 1984, the corporations initiated negotiations with the State for the purpose of developing a mutually acceptable Consent Agreement to conduct a comprehensive Remedial Investigation/Feasibility Study (RI/FS) addressing the mercury contamination in Berry's Creek, at the 40 acre site and in the contiguous wetlands. The companies' failure to sign a Consent Order by the July 1, 1984 deadline resulted in NJDEP, filing a Cooperative Agreement application with the United States Environmental Protection Agency (USEPA) for $1,220,000 in Superfund monies to conduct the RI/FS. However, the companies have since signed an Agreement with NJDEP, precluding the Cooperative Agreement, in which they have agreed to finance the RI/FS. Of 97 New Jersey sites on the National Priorities List, the Berry's Creek site is ranked 21st.

*In the late 1970's, Ventron Corporation was purchased by Thiokol and in 1982, Thiokol merged with Morton to form Morton-Thiokol.
Site Name
Blue Spruce International, Inc.
West Main Street
Bound Brook Borough
Somerset County

Site Description
This is the site of an inactive pesticide mixing, blending and formulating plant operated by Blue Spruce International, Inc. from 1971 to 1981 in a building leased in Brook Industrial Park. Inspections of this facility during its period of operation have documented improper handling of hazardous materials.

The manager of Blue Spruce International, Inc. was also president of the Chemical Insecticide Corporation plant, formerly located in Edison Township. This latter property is also a hazardous waste site.

Environmental Impact
Numerous pesticide wastes, including DDT, have contaminated the soil and, subsequently, the groundwater at the site. The N.J. Department of Environmental Protection (NJDEP) has also detected significant concentrations of numerous volatile organic chemicals, including methylenechloride, toluene, chlorobenzene, and benzene in soil and groundwater samples taken at the site.

In addition, this site was identified by the NJDEP Dioxin Task Force for possible dioxin contamination. Samples taken inside the building showed readings of 6.1 and 5.7 parts per billion (ppb) of 2,3,7,8 - Tetrachlorodibenzo-dioxin (2,3,7,8-TCDD). Soil samples taken in close proximity to the Blue Spruce plant showed detectable levels of dioxin. Samples taken from a nearby access road and off-site areas showed no detectable dioxin levels, encouraging officials to believe that contamination has not spread off site.

Status
On December 13, 1982 the State of New Jersey and Blue Spruce International, Inc. entered into a court-ordered settlement which required the company to provide funding for the removal of the pesticide-contaminated soil at the site. Funds for this removal operation were not transferred to the NJDEP until the summer of 1983. The United States Environmental Protection Agency is currently investigating other potentially responsible parties.
Site Name

Bog Creek Farm
Route 547
Howell Township
Monmouth County

Site Description

Bog Creek Farm is a privately owned twelve-acre parcel of property. The disposal area occupies approximately four acres and is located on a low-gradient hillside in the northeast corner of the property. A pond has been constructed between the dumping area and the North Branch of the Squankum Brook. The brook is contiguous to Allaire State Park and feeds into the Manasquan River. A bog area lies between the northeast corner of the property and the North Branch of Squankum Brook. The property, located just off Route 547, is zoned for agricultural use and has recently been used to breed, train and graze horses. There are two occupied dwellings and three stables with numerous animals on the property. Between 1973 and 1974, solid and liquid chemical wastes and sludges were disposed of on site in open areas and excavated pits. The wastes were possibly from the agricultural, electrical manufacturing, paint manufacturing, and bulk transport industries. Substances alleged to have been dumped include: lacquer thinners, paint solvents, metal paints, paint resins and disinfectants, as well as animal carcasses and other debris. Contamination has been detected in water and sediment from the north branch of Squankum Brook, the existing groundwater monitoring wells, the pond and test pits on site, and bog runoff.

Environmental Impact

Sampling has indicated contamination by carcinogens and other priority pollutants. Noxious chemical odors at the site have been reported and confirmed. Subsurface conditions indicate that a clay-fine silt lens protects the underlying Kirkwood/Piney Point Aquifer, which is tapped for potable wells. The North Branch of the Squankum Brook is located in the head waters of the proposed Manasquan Reservoir Project.

Status

The United States Environmental Protection Agency (USEPA) prepared a Remedial Action Master Plan (RAMP) which was completed in April 1983. In September 1983, a Contract between the USEPA and the New Jersey Department of Environmental Protection (NJDEP) was signed to commit approximately $400,000 to the performance of a Remedial Investigation/Feasibility Study (RI/FS) as recommended in the RAMP. The project was delayed when NJDEP attempted to gain access to the site for USEPA, but was refused by the property owner. Under the threat of a court order, site access was granted in May 1984. Work on the RI/FS commenced that month and USEPA, who has the lead at this site, has projected a completion date of June 1985.

Of 97 New Jersey sites on the National Priorities List, the Bog Creek Farm site is ranked 48th.

11/84
Site Name

Borden Chemical Company
930 Lincoln Blvd.
Middlesex Borough
Middlesex County

Site Description

This is an active facility which has been operated for the manufacture of adhesive and binding compounds since 1956. Prior to that date, the facility was operated by Pioneer Latex Chemical Company. Both companies utilized a 4.5-acre disposal field on site.

In 1984, a mosquito trench was dug through a marshland area along the eastern edge of the site. This allowed a black tar-like substance and a rust-colored material to leach out of the soil into the surface water of the trench which leads to a feeder stream of the Bound Brook. A subsequent inspection was conducted by the New Jersey Department of Environmental Protection on July 17, 1984. Sixteen drums were discovered on site and metal detector readings indicated a high potential for buried drums.

Environmental Impact

Soil, surface water and ground water contamination are all of concern.

Status

On July 9, 1985 this site was proposed to the United States Environmental Protection Agency for inclusion on the National Priorities List for Superfund.

10/85
Site Name

Borne Chemical Company
632 South Front Street
Elizabeth City
Union County

Site Description

This is the site of an inactive lubricating oil manufacturing plant located on a five-acre tract of land bordering the Arthur Kill Waterway in a mixed residential and industrial section of the City of Elizabeth. In addition to petroleum processing and blending, the plant also manufactured products used in the leather tanning industry, tints for the textile industry and oil additives. The facility includes several bulk storage tanks, warehouses and a railroad car loading facility. The company also operated a leasing business for bulk storage tanks.

Environmental Impact

Sampling at the site has shown low levels of polychlorinated biphenyls (PCBs) present in the waste oil contained in the bulk storage tanks. Approximately 600 drums of unknown contents also remain on site.

Various spillages have occurred and have contaminated the soil on site. Surface water and groundwater contamination are also likely. Limited sampling was performed on October 3, 1984 and results are pending.

Status

On January 28, 1980 the New Jersey Solid Waste Administration issued a Notice of Prosecution to the Borne Chemical Company. During that year the company also filed for bankruptcy. In 1983, the principals of Borne Chemical petitioned the Bankruptcy Court to buy the lubricating oil plant and reopen it under a different name. Subsequently, two other parties petitioned to buy all or part of Borne Chemical Company. In September, 1983 the company reduced its number of employees to a maintenance crew.

Various firms have rented the bulk storage tanks on site and Borne Chemical Company has received money from a legal settlement against one of these companies. This money was turned over to the holder of the first priority lien. In July, 1984 one generator removed approximately 600 drums from the site.

10/84
Site Name

Brady Iron and Metals, Inc.
55 Lockwood Street
Newark
Essex County

Site Description

Brady Iron and Metals, Inc. is a scrap metal recycling and transfer facility located in the Ironbound section of Newark, a mixed residential and industrial area at the city's eastern boundary along the Passaic River.

Environmental Impact

Concern about the potential environmental impact of dioxin in this area developed as information became available regarding manufacturing processes which had the potential to produce unwanted toxic by-products including 2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD). The suspected manufacturing processes include the production of certain pesticides, herbicides and hexachlorophene. In the spring of 1983, facilities which might have produced dioxin were identified and a sampling program was instituted. One site included in this survey was 80 Lister Avenue in the Ironbound section of Newark, the location of a plant which had been operated as a herbicide manufacturing facility during the years 1951 to 1969. Test results confirmed the presence of high concentrations of dioxin. As part of its comprehensive investigative program following this discovery, the New Jersey Department of Environmental Protection (NJDEP) sampled the Brady Iron and Metals, Inc. property in October, 1983. Business records of Brady Iron and Metals, Inc. indicate that the company purchased substantial amounts of scrap metal from 80 Lister Avenue from the successors of the Diamond Alkali Company. Much of the metal proved to be contaminated with dioxin and some residue from those vessels probably spilled onto the property, resulting in widespread soil contamination throughout the Brady site.

Status

During 1983 and 1984 various short-term remedial measures were undertaken by both the NJDEP and the United States Environmental Protection Agency (USEPA) in order to prevent the spread of dioxin from the site pending cleanup. Because dioxin is highly insoluble in water and binds very strongly to soil particles, efforts were concentrated on preventing wind-blown soil migration. Windbreak barrier fabric was placed along the existing fence and a layer of gravel was placed on the ground to anchor surface soil.

The site was further secured against water runoff with the construction of a low berm around its perimeter which directs rain water to the back of the property where it passes through a sand filtration system. This has proven to be highly effective in the removal of dirt particles to which dioxin can cling.
In addition, sodium silicate, a dust control solution, was applied to the soil surface. This solution acts as a "glue" so that soil particles are bonded together, thereby reducing the chances of runoff or windblown migration of soil. Fabric was used to cover the piles of scrap metal.

As part of an Administrative Consent Order (ACO) executed in December 1984 by Diamond Shamrock Chemicals Corporation, the Brady Iron and Metal site is scheduled to be remediated by June 1985. Remediation will include the removal of all materials containing dioxin, as well as the decontamination of affected on-site equipment and structures.

Brady Iron and Metals, Inc. is included in NJDEP's Management Plan for hazardous waste site cleanups. Presently, the cleanup is being executed via the ACO noted above.
Site Description

The Brick Township Landfill, which ceased operations in 1979, is located on 42 acres off Sally Ike Road (Route 549) in a predominantly residential area. The site is bordered by: the Garden State Parkway to the east, Route 549 to the west, townhouse developments to the south, and undeveloped land to the north. Since the early 1970s the landfill was used by Ocean County waste haulers to dispose of sanitary and commercial wastes. There were 150 55-gallon drums; three empty 10,000-gallon storage tanks, and three open pits used for septage on site. However, these conditions have been remediated according to the provisions of an Administrative Consent Order issued in 1982.

Environmental Impact

During an extensive water sampling program conducted by the New Jersey Department of Environmental Protection (NJDEP) and Brick Township in December 1980, a variety of contaminants were found in monitoring wells both on and off site, disposal pits, and surface water. In May 1981, sampling and analyses of private potable wells revealed the presence of trace contaminants including: chloroform, bromoform, 1,1-dichloroethane, and 1,1,1-trichloroethane. Although, at the time, area residents were advised that the levels of contaminants did not pose a health threat, Brick Township has since provided an alternate supply of drinking water for these residents.

A proposed elementary school site for a 14-acre tract across from Sally Ike Road has been rejected by the Board of Education and NJDEP due to potential health impacts associated with ground water contamination.

Status

In August 1982 NJDEP's Solid Waste Administration issued an Administrative Consent Order (ACO) to Brick Township for proper landfill closure and monitoring. By September of that year Brick Township began implementing the requirements of the ACO. However, in September 1983, NJDEP and the United States Environmental Protection Agency (USEPA) decided to stay the ACO in order to allow Brick Township's investigation to confirm the extent and concentrations of hazardous substances at the landfill. On May 5, 1984, Brick Township formally agreed to undertake the Remedial Investigation/Feasibility Study and to implement a remedial action alternative acceptable to NJDEP. Presently, Brick Township is considering revising their work plan in accordance with NJDEP/USEPA recommendations. When the revisions are finalized and approved, the ACO will be signed by NJDEP.

Of 97 New Jersey sites on the National Priorities List, the Brick Township Landfill is ranked 12th.

10/84
Site Name

Bridgeport Rental and Oil Storage Services, Inc.
Cedar Swamp Road
Logan Township
Gloucester County

Site Description

This site encompasses on a 26.4 acre tract of land located approximately one mile east of the town of Bridgeport and about two miles south of the Delaware River. The area surrounding the site is predominantly rural and agricultural and is generally characterized by swamps and streams flowing north-northwest to the river.

The facility has been used in the past for waste oil storage and recovery, storage tank leasing operations, and illegal dumping operations. The site contains approximately 18 large tanks ranging in size from 75,000 to 750,000 gallons in addition to other smaller vats and stills, comprising a total of 90 tanks overall, and a 12.7 acre waste oil and waste water lagoon. The lagoon was reportedly formed by previous sand and gravel mining operations. The average depth is approximately 12-18 feet, with reports of two holes that may be as deep as 60 feet. Preliminary estimates indicate the lagoon contains 50,000,000 gallons of contaminated liquids, six to eight inches of free floating waste oil and three to four feet of an oily sediment. Sampling of the lagoon indicated high levels of polychlorinated biphenyls (PCBs), oil and grease, heavy metals, phenols and benzenes. Commercial waste-handling activities are presently prohibited at the site by court order.

Environmental Impact

The characteristics of the lagoon are such that it has contaminated local ground water, surface water and soil. Of particular concern is the oil layer floating on the surface of the lagoon and the lagoon sediment which contain PCBs at an average concentration exceeding 500 parts per million.

Because the lagoon level rises with each rainfall, overflow and dike breaches have caused some lagoon oil and water to contaminate areas east and northeast of the lagoon. Ground water pollutants emanating from the site have contaminated several domestic wells west and northwest of the site and several other residential wells in this area are threatened.

Status

In June 1982 an emergency remedial action was initiated by the United States Environmental Protection Agency to lower the level of the lagoon by two feet. The Remedial Investigation/Feasibility Study for long-term site remediation was completed in May 1984.

Of 97 New Jersey sites on the Superfund National Priorites List, Bridgeport Rental and Oil Storage Services, Inc. is ranked 7th.
Site Name

Burlington Environmental Management Services (BEMS)
(Big Hill Landfill)
Southampton Township
Burlington County

Site Description

This is a 112 acre inactive landfill located between Big Hill Road and Route 70 in a rural section of the Pine Barrens. The landfill has been operating prior to 1968 and has been known to accept septic sludge and domestic and commercial solid waste. The landfill is characterized by steep slopes with observed leachate seepages that are collected and transferred to a storage pond. Two shallow ground water monitoring wells and a largely inoperative methane collection system are located at the site. An adult retirement community surrounds the landfill slope to the north and west at a distance of 50 feet. Cranberry bogs are located to the north and farms and wetlands surround the site to the south and east. The area is dotted with small bodies of surface water.

Environmental Impact

Analysis of samples taken from ground water monitoring wells in June 1984 revealed the presence of contaminants including benzene and chlorobenzene. The contaminants are likely to be coming directly from the landfill due to the location of the sampling wells downgradient from the landfill.

Ground water and surface water contamination appear to be of major concerns. Water in the area is used for recreation, crop production and drinking purposes. A potable well located 200 feet from the Landfill does not appear to be contaminated.

In 1978, 2½ inches of rain in 24 hours caused the leachate pond to overflow. Leachate entered Hampton Lakes via storm drains. Preliminary assessments by an outside contractor determined that the leachate could cause eutrophication in the lake.

Strong odors and methane gas generation are also issues being addressed in preliminary assessments and feasibility studies to determine their environmental impacts.

Status

The landfill was found to be in violation of many New Jersey Department of Environmental Protection (NJDEP) regulations and was closed by the NJDEP in 1983. A Feasibility Study has been initiated for control and use of methane gas. The NJDEP Division of Water Resources has written a draft New Jersey Pollutant Discharge Elimination System Permit which is currently under review. The landfill is presently being ranked for possible inclusion on the National Priorities List (NPL) for Superfund cleanup. The BEMS landfill is included in NJDEP's Management Plan for hazardous waste site cleanup and it will be addressed with state funds if necessary.
Site Name

Burnt Fly Bog
Texas and Spring Valley Roads
Marlboro Township
Monmouth County

Site Description

Burnt Fly Bog is an area of approximately 1700 acres adjacent to Texas and Spring Valley Roads. During the 1950's and early 1960's a portion of the site was used for the storage of waste oil in approximately five unlined lagoons. Discharges from these lagoons have contaminated an area of at least 17 acres. In addition, an area of approximately 10 acres known as the Westerly Wetlands is also suspected to be contaminated. There are currently four lagoons on site (one containing liquid oil and contaminated water, underlain by oil sludges, and three that have been backfilled with soil), as well as a mound of contaminated material known as the "Asphalt Pile," and approximately 350 exposed and partially buried drums.

Environmental Impact

The site is currently a ground water discharge area for the Englishtown Aquifer. The ground water flows to the surface and drains into Deep Run. Analysis of the ground water and surface water sediments indicate contamination with oil and various organic chemicals. The Englishtown Aquifer may be affected due to lack of an impervious clay layer beneath the lagoon area.

Status

The United States Environmental Protection Agency (USEPA) and New Jersey Department of Environmental Protection (NJDEP) entered into a Cooperative Agreement on September 1, 1981 to finance a Hydro-Geological Engineering Study of Burnt Fly Bog. This study cost $354,285, with 95% funding by the USEPA and 5% by the NJDEP. Sampling of the lagoons, the "Asphalt Pile", the abandoned 55-gallon drums, and the adjacent surface water sediment was conducted. Test pits were excavated along the perimeter of the waste area to determine the extent and concentration of the soil contamination. Twelve ground water monitoring wells were installed to collect water samples and to determine the directional flow and the vertical hydraulic gradient of the Englishtown Aquifer. Several nearby residential wells drawing from the shallow Englishtown Aquifer were also sampled and tested. The product of the Hydro-Geological Study was an Environmental Information Document (E.I.D.) which formulated and evaluated alternative remedial options and plans. The USEPA and NJDEP decided that removal and disposal of the drums, lagoon, the asphalt pile and contaminated surface soil would be undertaken.

During the summer of 1983, the NJDEP resampled area potable wells and the results did not indicate the presence of hazardous substances. On December 7, 1983, USEPA signed a Cooperative Agreement with NJDEP to commit $500,000 for the engineering design and $1,810,000 for the Phase I surface cleanup. The Phase I surface cleanup was planned for the excavation and disposal of gross surface contamination including: surface drums, lagoon 1 liquid and sludge, and the "Asphalt Pile". However, due to the discovery of polychlorinated biphenyls

Over...
(PCBs) at concentrations higher than 50 parts per million, portions of this Phase I cleanup will be conducted during the final site remediation.

The design work entails a soil testing program to determine the extent of subsurface contamination and the preparation of contract documents for final site remediation. NJDEP awarded the design contract in April 1984 and the Phase I surface cleanup/removal contract in May 1984. The surface cleanup and design work is currently underway.

In October 1984, NJDEP and USEPA entered into a Cooperative Agreement to commit $11.5 million to complete the Phase I surface cleanup ($1.95 million), and the engineering design ($0.05 million), and to conduct the entire final site remediation ($9.5 million).

Of 97 New Jersey sites on the National Priorities List, Burnt Fly Bog is ranked 8th.
Site Description

Buzby Brothers Landfill consists of two contiguous sites which encompass 51 acres. Approximately 19 acres belong to the RCA Corporation. The other portion of the property is presently owned by Voorhees Township. Both properties were previously owned by the Buzby Brothers who operated the landfill from 1972 until mid-1978. During that period one property was acquired by the Township and it appears that the Township continued a landfilling operation. The other property was landfilled by the Buzby Brothers Materials Corporation under a lease arrangement with RCA. The landfill was generally used for municipal refuse, liquid septage and solid waste but may also have been used for the disposal of chemical waste.

Environmental Impact

Currently, water quality is the greatest public health concern since area residents depend on private wells for their potable water supply. The United States Environmental Protection Agency (USEPA) and RCA conducted ground water and surface water sampling in September 1980. Lake sediment sample results indicated elevated levels of heavy metals including lead and chromium. Approximately one mile from the landfill is an old abandoned paint factory which produced lead-based paint. A marshy area on the eastern edge of the landfilled property flows into an unnamed lake which discharges to Silver Lake. There is also concern for the potential impacts on the potable water supply for the new housing development which is adjacent to the site.

Status

RCA, with the cooperation of the New Jersey Department of Environmental Protection (NJDEP) initiated a subsurface gas monitoring program at this site in late 1977. In response to combustible gas migration detected off site, Buzby Brothers installed a system of gas venting wells around the perimeter of the landfill. It became apparent in 1978 that the venting wells were not adequate and were still allowing migration of landfill-generated gases into surrounding soils and buildings. RCA appealed to the NJDEP's Solid Waste Administration (SWA) to require Buzby Brothers to submit and implement a plan for controlling subsurface gas and closing the landfill. In November 1978 the SWA issued such an order and a plan was developed, with the assistance of RCA personnel, and submitted by Buzby Brothers in January 1979.

In July 1984 the NJDEP issued a Directive Letter to RCA Corporation which required the remediation of certain landfill closure violations including inadequate maintenance of the gas venting system, inadequate site security, and the need for sampling of leachate and off-site ground water. In September 1984 NJDEP prepared a draft New Jersey Pollutant Discharge Elimination System (NJPDES) permit which supersedes the previously existing ground water monitoring requirements. Presently, NJDEP is planning to initiate a Feasibility Study utilizing New Jersey Spill Fund monies.

10/84
CPS Chemical Company/Madison Industries are two industrial facilities located on a 35 acre tract of land. CPS processes, treats, and stores alcohols, esters and other compounds. Madison produces zinc sulfate, zinc chloride and other zinc compounds for fertilizer, pharmaceutical and food additives. Both industries began their operations on site in the late 1960's. Within the immediate area of these two industries are three water bodies: Prickett's Brook, Prickett's Pond and Tennett's Pond. Madison has stored zinc, lead and cadmium in outside on the site. Spills, leaks and runoff have occurred for some time. Prior to the operations of the two industries there was no significant heavy metal or organic chemical pollution in area ground and surface water.

Environmental Impact

The area ground water and surface water have been severely contaminated with organic chemicals and heavy metals. Samples were taken of Prickett's Brook and Prickett's Pond, where 32 suction wells and three pump wells are located and designated as the Runyon well field owned by the City of Perth Amboy. All of the wells have been shut down. Chemical analysis showed that concentrations of zinc, lead and cadmium exceeding potable water standards are present under the Madison site upgrade to Prickett's Pond and in the sediments of the brook and pond. Currently the City of Perth Amboy draws most of its potable water from suction wells and three pump wells adjoining Tennett's Pond; these tap the Old Bridge Sands Aquifer. Organic chemicals have leached into the aquifer as the result of spills, leaks and runoff on the CPS property.

Status

Legal action against the two industries was initiated by the New Jersey Department of Environmental Protection (NJDEP) and the City of Perth Amboy. The court determined that the organic chemical emissions from CPS were the source of the chemical pollution of the Runyon well field and heavy metals emissions from Madison were the cause of such pollution of the Runyon well field. NJDEP formulated a program to restore and purify Prickett's Brook watershed. In April 1983, the industries were ordered by the Superior Court, Appellate Division, to finance the entire cost of the cleanup. NJDEP's plans include specifications for the relocation of Prickett's Brook and the construction of a slurry wall. A Request for Proposal (RFP) was issued in January 1984; NJDEP has selected an engineering firm, CH2M Hill, to finalize the technical documents of the plan. Meanwhile, CPS/Madison has proposed an alternative scheme for remedial action to be implemented in lieu of the court-ordered plan. They have agreed to conduct their sampling and analysis according to the protocol established by NJDEP.

NJDEP has taken a dual track approach to the clean up of this site which will allow for the execution of either plan. If CPS/Madison defies the court order as it now stands and does not finance the contract, then State Spill Fund monies will be utilized and the industries will be assessed triple cleanup costs. The engineering design contract is for approximately $750,000.

Of 97 New Jersey sites on the National Priorities List, the CPS/Madison site is ranked 4th.

10/84
Caldwell Trucking Company
222 Passaic Avenue
Fairfield Township
Essex County

Site Description

The Caldwell Trucking Company site encompasses 13 acres in Fairfield Township, approximately 7 miles northwest of Newark. The majority of the property is at the bottom of a hillside with a northwestern slope. The site is bordered by industry to the north, west and southwest. To the southeast, up on the hill, is the West Essex Regional High School. To the east is open hillside and a major residential area which is 700 feet from the site.

From 1933 to 1973, Caldwell Trucking Company operated as a hauler and disposer of septic wastes from residences and industries. Septage was placed in unlined settling lagoons and then chlorinated. After the heavy solids settled, the liquid was pumped and/or trucked to a seepage lagoon on the property. Solids from the settling lagoons were removed and shipped off site, usually for ocean disposal. Presently, there are three lagoons on site: one settling lagoon which contains 3 steel storage tanks for municipal septage; one settling lagoon that is partially filled with clean soil and covered with plywood; and one seepage lagoon which is filled and surrounded by a berm to divert surface runoff. The only buildings on the property are a garage which is used by Caldwell Trucking and a home that is owned by the president of the company.

Environmental Impact

Analysis of ground water has indicated contamination by various chlorinated hydrocarbons. To date, over 30 private wells, north and east of the site, have been taken out of service by local officials due to contamination and are now being serviced by municipal water. Additionally, Municipal Well #7 may be adversely affected by the contamination. It is estimated that the contaminated plume is 1,300 feet wide and travels from Caldwell Trucking Company through the property of the neighboring company, General Hose, and most likely discharges to the Passaic River.

Status

The New Jersey Department of Environmental Protection (NJDEP) has conducted investigations to identify sources of contamination. An Administrative Order was issued to Caldwell Trucking in September, 1982 requiring: the proper closure of the on-site lagoons; the termination of all discharges to soil, surface water, and ground water; the remediation of the ground water contamination caused by prior on-site activities. In addition, an Administrative Consent Order was issued to General Hose requiring: the installation and sampling of three monitoring wells; and decontamination of ground water if the conditions are attributed to prior on-site activities.

On March 25, 1984 the United States Environmental Protection Agency (USEPA) and NJDEP entered into a contract to commit $600,000 for a Remedial Investigation/Feasibility Study. The contractor's work plan was approved by NJDEP and USEPA in December 1984. Locations for ten monitoring wells have been selected and the property owners are being contacted concerning access agreements. USEPA has recommended that private residences in the affected area be connected to the municipal water system. Such connections may be financed with Spillfund monies.

Of 97 New Jersey sites on the National Priorities List, the Caldwell Trucking Company site is ranked 11th.
Site Name
Cheesequake State Park
Old Bridge Township
Middlesex County

Site Description
Cheesequake State Park is a 1000 acre camping and beach recreational area located just off The Garden State Parkway and Perrine's Road in Old Bridge Township. Approximately 150,000 people visit the park annually.

Until 1973, garbage that was generated at the park from camping and recreation was burned in an incinerator. The residues were placed in a ravine at the northern boundary of the park. Upon prohibition of incineration and declaration of the dumping area as a wetlands area, the Park Administration chose a ten acre clay pit site near the salt marsh on the park's western border as an alternative dump area. The State had purchased this parcel of land in 1965.

Environmental Impact
In the early 1970's, Cheesequake received a grant to improve Hooks Creek Lake. In developing the design for this site improvement, which called for placing the dredge spoils on top of the clay pit garbage dump area, approximately 400 drums with varying amounts of lead-based paint sludges were discovered.

The original drums were removed by a hazardous waste contractor as part of the contract for the park improvements. Upon completion of the original work, ten additional drums were discovered at an adjacent area for which remedial action monies were not available. In addition, the Department was informed by the Park that three drums were discovered in the nearby Perrine Pond by local "emergency safety" divers while commissioned to become familiar with the area. The contents of these newly discovered drums are unknown but it is suspected that they contain similar lead-based paint sludges as found in the original drums.

Status
In August 1984, the New Jersey Department of Environmental Protection (NJDEP) sampled six monitoring wells (installed by NJDEP) to investigate ground water quality at the site. Three of the six well samples revealed lead at levels exceeding the Federal Interim Primary Drinking Water Standards. The NJDEP will require the Division of Parks and Forestry to undertake a more comprehensive investigation of the site in order to define the nature and extent of the contamination and determine the remedial actions to be undertaken.

This site was submitted to the United States Environmental Protection Agency in January 1984 for Superfund consideration. However, the hazardous ranking score was not high enough to achieve the National Priorities List.
OLD BRIDGE TWP.
MIDDLESEX CO.
Chemical Control Corporation
23 South Front Street
Elizabeth City
Union County

The Chemical Control Corporation property encompasses an area of approximately two acres in a mixed residential and industrial area. Bordering the site to the west is the Elizabeth River and approximately 200 feet to the east is the Arthur Kill waterway.

In 1972 the corporation began operation at the site with a hazardous waste storage, treatment and disposal facility which accepted various types of chemicals including acids, bases, arsenic, cyanides, flammable solvents, polychlorinated biphenyls, compressed gases, biological agents, shock sensitive chemicals, pyrophoric materials and pesticides.

Efforts to remove the hazardous waste from the site were initiated in 1979 by the New Jersey Department of Environmental Protection (NJDEP). Following an explosion and fire in 1980, the NJDEP, in conjunction with the U.S. Coast Guard, removed all bulk liquids, drummed wastes, bulk storage tanks, building rubble and contaminated debris. The property was decontaminated, a ground water decontamination system was installed and approximately six million gallons of groundwater have been treated. Approximately 200 gas cylinders, 11 trailers and a vacuum truck remain on the site which is now enclosed by a chain link fence.

Environmental Impact

Prior to and during the fire, drums which had been stacked four high along the river bank for the entire length of the property may have fallen into the Elizabeth River. This river is used for recreational as well as commercial purposes.

During the initial cleanup operation several catch basins were physically removed or damaged by heavy equipment. Other catch basins and manholes were sealed off with sand to prevent contaminated run-off water from entering the Elizabeth River and the Arthur Kill Waterway. This action has caused excessive flooding on the site itself and on South Front Street.

After the fire there was the additional concern of ground water and surface water contamination caused by the runoff of water used to put out the fire and consequently polluted by contact with the toxic materials on site.

Status

The Chemical Control Corporation was placed in receivership in January, 1979. That same year the NJDEP initiated a remedial action program to remove the approximately 60,000 drums of hazardous materials on site at that time. Work on this phase of the project continued through November, 1981 when the drum removal was completed at a cost of $25,320,000 provided by the N.J. Spill Compensation Fund.
On September 20, 1983, the United States Environmental Protection Agency (USEPA) provided $772,500 for additional work at the site which included: (1) investigation of the presence of drums in the Elizabeth River and (2) design of a plan to decontaminate and remove the trailers and vacuum truck, to decontaminate and refurbish the storm sewer system and curbing, and to repack, load, transport and dispose of approximately 200 compressed gas cylinders.

In July, 1984 all but six of the compressed gas cylinders were repacked in containers especially designed for this purpose. The six remaining containers were not repacked because their probable contents were considered less hazardous and because of their larger size. A contract was awarded to complete the decontamination and refurbishment of the storm sewer system and curbing and the decontamination and removal of the trailers. Currently, the USEPA and the NJDEP are developing specific criteria for disposal of the compressed gas cylinders and final site closure measures.

Of 97 New Jersey sites on the National Priorities List, the Chemical Control Corporation is ranked 41st.
Site Name

Chemical Insecticide Corporation
30 Whitman Avenue
Edison Township
Middlesex County

Site Description

This 4.5 acre site is the former location of a Chemical Insecticide Corporation facility. The company moved to this location in 1958 and ceased operations in 1970 when the owner filed for bankruptcy. The property was subsequently purchased by Piscataway Associates, a real estate development firm, in 1972 and the plant was razed in 1975.

The property is located in a mixed residential and manufacturing area and approximately 15,000 people live within 3,000 feet of the site. A school is located less than one mile away.

Environmental Impact

The New Jersey Department of Environmental Protection (NJDEP) identified the site through its investigation of manufacturing operations which produced insecticides and other organic compounds such as 2,4,5-trichlorophenoxy, acetic acid (3,4,5-T) and 2,4-dichlorophenoxyacetic acid (2,4-D) which could produce dioxin as an unwanted by-product.

There is also concern about the presence of other contaminants in addition to dioxin at this site. The company has been cited several times for air and water pollution in the past, including one incident of an arsenic spill in 1969 which contaminated Mill Creek. A number of fires have occurred at the plant including two cases in which minor explosions injured workers. Dioxin can also be formed in the combustion process even from chemicals not directly related to dioxins, such as the insecticides DDT, aldrin and dieldrin.

Status

In June, 1983 Governor Kean announced that small traces of dioxin had been found at the site. Of eleven soil samples tested, six had no detectable levels below 0.26 part per billion (ppb) and two taken from core borings several feet below the surface showed levels of 5.1 and 3.9 ppb. The United States Environmental Protection Agency (USEPA) took 61 soil samples from the site, seven of which indicated the presence of dioxin at levels ranging from 0.09 to 17.0 ppb in locations consistent with the NJDEP test results. There is no evidence to suggest that the contamination has spread off site. Five samples taken from residences and businesses near the site showed no trace of dioxin.

The present owner of the site has secured the area with a fence and covered the property with a protective tarpaulin in order to eliminate off site migration of potentially contaminated material. A Remedial Investigation/Feasibility Study is scheduled to be performed by USEPA.
Site Name

Chemical Leaman Tank Lines, Inc.
Logan Township
Gloucester County

Site Description

This 2-acre site is located on Cedar Swamp Road, east of Oak Grove Road in Logan Township. Chemical Leaman Tank Lines, Inc. has operated a tank washing business there since 1960. Waste water generated from the operation, estimated to be 5,000 gallons/day, was disposed of without authorization through a series of six lagoons that discharge to ground water and surface water.

Environmental Impact

Ground water analyses conducted by the New Jersey Department of Environmental Protection (NJDEP) in 1980-1981 revealed the presence of carbon tetrachloride and other organic substances underlying the site and in private wells. Extensive ground water contamination is the major concern. The facility is located on the outcrop zone of the Raritan and Magothy aquifer, a major source of potable water. Residents within a 3-mile radius of the site are dependent upon private and municipal wells for drinking supplies. Several private wells have been closed because of contamination which may be related to this site.

Surface water downstream of the site is used for recreation and irrigation. Cedar Swamp, a freshwater wetland, is approximately 1000 feet from Chemical Leaman Tank Lines. In June, 1982 a fish kill in Cooper Lake was attributed to a tank overflow at the facility. Ingestion of contaminated fish by humans and other organisms presents a potential health hazard and threat to the local food chain.

Status

In 1975 use of the lagoons was discontinued and they were filled. In June 1981 the NJDEP and Chemical Leaman Tank Lines entered into an Administrative Consent Order (ACO) which required the company to conduct a hydrogeological investigation of ground water contamination underlying the site. Subsequently, the company agreed to excavate the area of the former settling lagoons and install additional monitoring wells. Since the monitoring wells revealed continued ground water problems, the NJDEP, Division of Water Resources (DWR) negotiated with Chemical Leaman to decontaminate the ground water. Negotiations for decontamination in the areas of the former settling lagoons were formalized via an ACO which was to have been signed by June 30, 1984. The company did not sign the agreement by the required date and the case is now a United States Environmental Protection Agency (USEPA) enforcement lead. A new ACO is to be negotiated and will probably address the contamination of the former settling lagoons, the former aeration lagoons, off site well contamination, deep aquifer contamination and other related concerns.

Of 97 New Jersey sites on the National Priorities List, the Chemical Leaman Tank Lines, Inc. site is ranked 37th.

11/84
Site Name

Chemsol, Inc.
Fleming Street
Piscataway Township
Middlesex County

Site Description

This site is a 12-acre tract of land formerly used by Chemsol, Inc. as a chemical manufacturing facility. The owner has since razed the site with the intention of subdividing the property for a housing development. Investigations revealed approximately 40 drums containing hazardous waste and evidence of spillage and leakage.

Environmental Impact

Contaminated soils are present. Sampling of the ground water and a nearby surface tributary indicated the presence of chlorinated solvents and volatile organics in elevated concentrations. Many private wells exist in the area. Groundwater is also used for industrial processes.

Status

The owner complied with an Administrative Order to remove existing drums. Monitoring wells were installed in 1980. On April 30, 1984 an Administrative Consent Order (ACO) was issued to the owner to ensure that all pollutants on site will be removed and that a ground water treatment system will be installed to remove organic contaminants. A representative of the company signed the ACO on July 9, 1984. Since then, eight more monitoring wells have been installed and over 30 sites were sampled for soil contamination.

Of 97 New Jersey sites on the National Priorities List, the Chemsol, Inc. site is ranked 49th.

9/84
Site Name

Chemical Company, Inc.
(Reagent Chemical and Research, Inc.)
5 Factory Lane
Middlesex Borough
Middlesex County

Site Description

This site is an inactive dump located within the boundary of an active facility formerly owned by Chipman Chemical Company, a manufacturer of insecticides, herbicides and fungicides. It is presently owned and operated by Reagent Chemical and Research, Inc. for the manufacture of industrial lubricants.

The property is located in a mixed residential and industrial neighborhood with a residential area within three blocks of the site. The Central New Jersey Railroad is adjacent to the property and the Raritan River flows south of it.

Environmental Impact

Heavy metal and pesticide wastes have been buried on site within the water table, causing concern about ground water and soil contamination. Sampling analysis of water runoff indicated high concentrations of arsenic which could contaminate the Raritan River.

Status

In 1967 Chipman Chemical Company merged with Rhodia, Inc. which subsequently changed its name to Rhone-Poulenc, Inc. This latter company has agreed to install monitoring wells to delineate the extent of subsurface contamination. Results will be evaluated to determine appropriate remedial action.
Site Name
Cinnaminson Groundwater Contamination
Grinding Balls Road
Cinnaminson Township
Burlington County

Site Description
It is estimated that the site underlies the Sanitary Landfill, Inc. and encompasses that fraction of the Raritan-Magothy Aquifer located beneath Grinding Balls Road between Taylor Lane and Union Landing Road. However, the boundaries of the site have not been completely defined. Although the source is considered unknown, the 95-acre Sanitary Landfill, Inc. property is suspect, along with other possible sources. The landfill began operation in the mid-1950s as a municipal refuse dump and consists of an unlined excavated gravel pit which cuts into the area water table. Allegations have been made that large quantities of unidentified chemical waste have been disposed of directly into this water-filled pit.

Environmental Impact
Monitoring wells have shown that the aquifer is contaminated in this area with chloroform, benzene, chloroethane, 1,1-dichloroethane, volatile organics, inorganics and metals.

Approximately 52,000 people are served by the individual home and municipal wells located within a three-mile radius of the site. Although no known contamination to these drinking water sources has occurred, the potential for future contamination does exist.

Status
In December, 1983 Sanitary Landfill, Inc. filed a report evaluating ground water conditions in the vicinity of the landfill and proposing a ground water monitoring plan for the facility as part of a landfill closure plan. According to this report, available data indicates that alleged ground water contamination stems principally from an unidentified off-site source north and upgradient of the landfill. An Administrative Consent Order detailing landfill closure requirements was signed on October 15, 1984.

In October, 1984 the site was included on the interim National Priorities List (NPL) as part of the Superfund cleanup program. Of 97 New Jersey sites on the NPL, Cinnaminson Groundwater Contamination is ranked 65th.
Site Name
Combe Fill North Landfill
Gold Mine Road
Mount Olive Township
Morris County

Site Description
The Combe Fill North Landfill occupies an area of approximately 102 acres, situated north of Gold Mine Road and west of Netcong/Flanders Road. The landfill, which operated under a State permit since 1969, was licensed to accept municipal and non-chemical industrial wastes. There are many residences, a major apartment complex, a number of small businesses, and a school, located in the vicinity of the Combe Fill North Landfill, all of which rely on private or municipal ground water wells for their potable water supply. The landfill is not currently in operation, however, proper State closure procedures have not been implemented due to Combe Fill Corporation's filing for bankruptcy in September, 1981. The site is not fenced or capped, and there is no treatment or abatement of its leachate. Substantial amounts of leachate are generated at the site due to a great deal of rain water percolation. Records indicate the presence of asbestos material. The landfill is eroding at a rapid pace, resulting in increasing amounts of garbage becoming exposed to the atmosphere.

Environmental Impact
Ground water samples taken from off-site monitoring wells and private residential wells downgradient of the site have indicated numerous organic contaminants. Air monitoring at the landfill has also indicated the presence of several organic contaminants. An on-site incident involving direct contact of an individual with sulfuric acid has been recorded. Since ground water quality at the site has become highly degraded and the majority of the population surrounding the landfill relies on private or municipal ground water wells, public health is an issue.

Status
The United States Environmental Protection Agency (USEPA) prepared a Remedial Action Master Plan (RAMP) in June, 1983 to identify the scope and sequence of investigation activities and remedial actions, as well as a schedule for implementation. On November 21, 1983 the New Jersey Department of Environmental Protection (NJDEP) signed a Cooperative Agreement with the USEPA to commit $371,800 for a Remedial Investigation/Feasibility Study (RI/FS). NJDEP awarded a contract for performance of the RI/FS in August, 1984.

Of 97 New Jersey sites on the National Priorities List, the Combe Fill North Landfill is ranked 35th.

10/84
Site Name

Combe Fill South Landfill
Parker Road
Chester & Washington Townships
Morris County

Site Description

The Combe Fill South Landfill is an inactive site encompassing approximately 80 acres in a partially wooded, rural-residential area of Chester and Washington Townships. The site is bordered on the east and south by Parker Road. To the north lies a forested area, then private properties on Schoolhouse Lane and East Valley Brook Road. A 50-acre hardwood wetland lies to the west-southwest of the landfill and is the origin of West Branch Trout Brook, a tributary of the Lamington River.

Since the 1940's, the site was operated as a municipal refuse and solid waste landfill and was used for the disposal of household and industrial wastes, dead animals, sewage sludge, septic tank wastes, chemicals, and waste oils. Records of the landfill operation prior to 1970 do not exist. From 1971-1972, Filberto Sanitation operated the site. In 1972, Chester Hills, Inc. received a "Certificate of Registration" to operate the site for disposal of non-hazardous municipal and solid wastes. This action marked the first state regulatory control over the landfill operation. In 1978, the site was purchased by Combe Fill Corporation who operated the landfill until they filed for bankruptcy in September 1981. The property is currently controlled by a bankruptcy trustee.

Environmental Impact

Soil contamination is evident in the areas where seeps discharge from the landfill. Monitoring of ground water has indicated elevated levels of organics in both shallow and deep-water wells. Surface water sampling of Trout Brook and the East Branch Trout Brook revealed elevated levels of organics and inorganics. Visual signs of contamination of these waters and of Tanners Brook have also been observed.

The primary health concern is the potential contamination of residential wells and of the underlying Precambrian gneiss aquifer. Dermal contact with contaminated surface waters, seeps, and sediments is a potential concern to residents of the surrounding communities. Monitoring of the waters downstream of the site will determine the extent of off-site waste migration and the potential for public contact with contaminated waters and sediments.

Status

The New Jersey Department of Environmental Protection (NJDEP) issued several Administrative Orders culminating in a Closure Order on September 9, 1981. Proper grading, capping, well monitoring, and a leachate collection system were all part of the proposed closure plan. On December 3, 1983 the NJDEP and the United States Environmental Protection Agency (USEPA) signed a Cooperative Agreement to commit $550,000 for a Remedial Investigation/ Feasibility Study (RI/FS). In April 1984 the NJDEP sampled and analyzed landfill leachate, surface water of the East and West Branches of Trout Brook, as well as potable water wells for local residences. In July 1984 NJDEP awarded the contract for the RI/FS and the remedial investigation is currently underway.

Of 97 New Jersey sites on the National Priorities List, the Combe Fill South Landfill is ranked 43rd.
Site Name

Cooper Road Drum Dump
Voorhees Township
Camden County

Site Description

The site is primarily a sand pit, situated on 85 acres approximately 1,000 feet from Cooper Road in Voorhees Township. Topography of the affected area has been drastically altered because of soil removal and indiscriminate dumping. The north branch of Cooper River flows approximately 2,000 feet downslope from the site and empties into the Delaware River. Hundreds of one and two ounce vials were found partially buried along the top edges of the pit. The parties responsible for the disposal are unknown. The contents of the vials were analyzed and indicated the presence of many hazardous substances including: benzene, ethylbenzene, xylene, 1-3 dichlorobenzene, hexachlorocyclopentadiene, naphthalene and isophorone.

Environmental Impact

Contamination of ground water is a concern. Several private and municipal wells are found within 500 feet of the site. Approximately 14,000 people reside in areas that may be vulnerable to contamination from the site. Additionally, the surrounding area is rapidly being developed with town houses and single family units that are dependent upon ground water for potable supplies. During the 1980s, the population is projected to increase to about 37,000 people.

Status

Numerous site inspections have been made by the following concerned authorities: the New Jersey State Police, the Camden County Health Department, and several New Jersey Department of Environmental Protection (NJDEP) representatives from the Division of Waste Management (Field Operations, Environmental Evaluation and Risk Assessment). In October 1982, a Directive Letter was issued by NJDEP to the property owners, the Canuso Corporation, to remove and properly dispose of the contaminated soils and the vials containing hazardous materials. Six months later, the Cinnamerican Realty Company of Cherry Hill acquired the Cooper Road property and were issued the same Directive Letter in August 1983. The realty company hired a contractor in November 1983 to remove all the glass vials and contaminated soil. Cleanup operations were paid for entirely by Cinnamerican. Additional sampling is needed to confirm that all contaminated soil was removed.

Of 97 New Jersey sites on the National Priority List, the Cooper Road Drum Dump is ranked 72nd.
Site Name

Cosden Chemical Coatings Corporation
Cherry Street and Lee Avenue
Beverly City
Burlington County

Site Description

This is an active facility situated on an 8.8-acre property. Approximately 700 drums of paint waste and solvents have been found on site. A significant portion of these wastes contain polychlorinated biphenyls (PCBs) and numerous spills and discharges have occurred.

Environmental Impact

Soil contamination has been documented and surface water and ground water contamination are of concern. Employees may come in contact with PCB-contaminated soils throughout the course of the workday. In addition, a residential development is located across the street, less than 300 feet from the site.

The Delaware River and Rancocas Creek are both located within a one-mile radius of the site and contamination by surface run-off is possible. Three municipal water supply wells are located within a three-mile radius of the site. Because of the high permeability of the soil, there exists a potential for contaminants to migrate to these wells.

Status

On July 14, 1981 a Directive Letter was issued to Cosden Chemical Coatings Corporation to remove and dispose of the drums. The corporation never complied with the directive, however, and subsequent inspections revealed additional spills as well as illegal storage of hazardous waste.

In February 1985 the New Jersey Department of Environmental Protection (NJDEP) secured the site by consolidating the drums into roll offs.

On July 9, 1985 this site was proposed to the United States Environmental Protection Agency for inclusion on the National Priorities List for Superfund.

10/85
Curcio Scrap Metal, Inc.
Saddle Brook
Bergen County

Site Description

Curcio Scrap Metal, Inc. is an active scrap metal salvage operation located on a one-acre parcel at the intersection of Lanza and Midland Avenues in Saddle Brook. The site is bordered by a concrete company on the north and on the east, domestic residences on the south, and Midland Avenue on the west. It is on a small industrial block surrounded by a medium density residential area. On site there is one small office building and piles of salvaged scrap metal.

On at least one occasion in 1982, Curcio Scrap Metal, Inc. received a shipment of electrical transformers for the purpose of salvaging the copper and bailing the remaining metal components. During the cutting of the transformers, residual polychlorinated biphenyl (PCB) laden oil spilled onto the ground. In October 1982 approximately 15 cubic yards of contaminated soil were excavated from the scrap yard and buried in an empty adjacent lot also owned by Curcio.

Environmental Impact

Surface runoff samples taken from a drainage ditch at the east side of the property has revealed various concentrations of PCBs in the water and oil layers. Sampling of ground water seepage to a well pit on the adjacent property also indicates traces of PCBs. Well water samples taken from neighboring properties did not reveal detectable concentrations of PCBs. Concern remains for contaminant migration to ground water.

Status

On January 21, 1983 the New Jersey Department of Environmental Protection (NJDEP), Division of Water Resources (DWR) issued Curcio Scrap Metal, Inc. a directive letter to cease discharge of waste oil and other pollutants. The DWR reinspected this site on February 24, 1983 after being prompted by a complaint that the contaminated soil had been removed to an adjacent lot. This was later confirmed by the property owner.

Following another site inspection, the NJDEP submitted Curcio Scrap Metal, Inc. to the United States Environmental Protection Agency (USEPA), Region II for Superfund consideration. Curcio Scrap Metal, Inc. is included in NJDEP's Management Plan and will be addressed with state funds, if necessary.

9/85
Site Name
Delilah Road Landfill
Egg Harbor Township
Atlantic County

Site Description
This is an inactive site encompassing an area of 40.42 acres which had been operated as a sand and gravel mining pit before it was converted to a private landfill in 1972. The site is located in an agricultural/residential area 6.5 miles northwest of Atlantic City. Jarretts Run Creek is located approximately 1,000 feet northeast of the site and flows easterly to Absecon Creek which flows into Absecon Bay. The Atlantic City Reservoir is approximately 1.5 miles north of the site.

Although the landfill permit was issued for disposal of non-hazardous municipal and solid waste only, records indicate that drummed flammable wastes and drummed sludges containing trichloroethane and lead have been dumped on site. It has been alleged that the Delilah Road Landfill was used for disposal operations similar to those at Price's Landfill. A Notice of Violation was issued by the New Jersey Department of Environmental Protection (NJDEP) in 1979 and landfill operations were terminated in September, 1980. Since closure, areas of the landfill have been thinly covered.

Environmental Impact
Ground water contamination is a major concern at this site. Chlorobenzene, methylene chloride, lead, chromium and mercury have been detected in shallow ground water monitoring wells. The Cohansey Aquifer, the principal aquifer serving Atlantic County, underlies the landfill.

The New Jersey Water Company has a production well located in the Cohansey Aquifer approximately 6,000 feet southeast of the site and a production well 3,000 feet northwest of the landfill. Private potable water wells are located within 2,000 feet of the landfill.

As noted above, Absecon Bay receives water from Jarretts Run Creek and Absecon Creek. The bay is an estuary used for both commercial and sport fishing as well as other recreational activities.

Status
The NJDEP and the United States Environmental Protection Agency have entered into a Cooperative Agreement allocating $484,638 for a Remedial Investigation/Feasibility Study. Work is expected to begin in the spring of 1985.

Of 97 New Jersey sites on the National Priorities List, the Delilah Road site is ranked 28th.
Site Name

Denzer & Schafer X-Ray Company
Bayville
Berkeley Township
Ocean County

Site Description

Denzer & Schafer X-Ray Company is a metal reclaiming plant located on Hickory Lane in a rural area of Berkeley Township. This facility uses caustic chemical solutions to reclaim silver from x-ray film. The process waste water has been discharged to an underground septic tank which overflows to an open area behind the plant.

Environmental Impact

Ground water contamination of the underlying shallow water bearing zones has been documented. Any contamination introduced into a septic system near the surface would enter the upper Cohansey Aquifer with percolating rain water. The Cohansey Aquifer supplies potable water to domestic wells and public supply wells in the area. Although most potable wells in the area use the deeper aquifer, the potential for downward migration of contaminants exists.

Status

The New Jersey Department of Environmental Protection (NJDEP) issued an Administrative Order on January 20, 1977 to Denzer & Schafer which required the company to: cease discharging improperly and inadequately treated waste water; implement an acceptable interim method of treatment and disposal; and prepare an engineering report for a permanent treatment method.

NJDEP's Solid Waste Administration issued a Notice of Prosecution in February 1981 to Denzer & Schafer for disposal of solid wastes on the company's property without approved registration and design for proper disposal. Due to non-compliance, NJDEP issued another Administrative Order in May 1981 to Denzer & Schafer which required them to immediately cease the discharge of waste waters to their existing septic system. The company was also ordered to submit a proposal to NJDEP for permanent treatment and disposal off site, and the installation of a ground water monitoring system.

An Administrative Consent Order (ACO) should be executed by April 1985. If the ACO is not signed by the scheduled date, Superfund activity will be initiated by NJDEP and the United States Environmental Protection Agency. The Ocean County Utilities Authority (OCUA) is presently being considered as a treatment and disposal option. The plan would entail pumping out the contaminated ground water to OCUA, provided that the wastes could be properly treated.

Of 97 New Jersey sites on the National Priorities List, Denzer & Schafer X-Ray Company is ranked 60th.
Site Name

DeRewal Chemical Company
Kingwood Township
Hunterdon County

Site Description

This site encompasses approximately 1.4 acres situated 150 feet east of the Delaware River on Route 29 just south of the Frenchtown boundary line. Records indicate areas of soil contaminated with chromium and copper wastes were excavated in 1974. Apparently, this soil was not removed from the site for disposal at that time, but rather was left on site in two partially covered piles. It is unclear whether the contaminated soil was later removed or whether the mounds of soil eventually eroded and then were spread back onto the property.

The DeRewal Chemical Company sold the property in 1978 and it is now used as an apiary. In July, 1983 the present owner, B. Flower and Sun Honey Company, had 30 tons of soil excavated to reduce the risk of flooding. This soil was transported to the property of the Frenchtown Roller Rink on the west side of Route 29.

Environmental Impact

Samples collected in 1974 indicated ground water contamination. However, sampling in November, 1983 of the potable well on site did not reveal contamination. In addition, no visible contamination was noted during a recent site inspection. Surface water contamination has been a concern since storm run off from the site flows directly into the Delaware River.

Status

Of 97 New Jersey sites on the National Priorities List, the DeRewal Chemical Company site is ranked 75th.

11/84
Site Name

Diamond Shamrock Chemicals Company/Marisol, Inc.
(also known as Diamond Alkali Company)
80 Lister Avenue
Newark
Essex County

Site Description

This is a 3.5 acre, inactive site formerly operated as a herbicide manufacturing facility by the Diamond Alkali Company during the years 1951 to 1969. The plant was closed in August, 1969 and is presently owned by Marisol, Inc. The site is located in the Ironbound section of Newark, a mixed residential and industrial area at the city's eastern boundary along the Passaic River.

Environmental Impact

Concern about the potential environmental impact of dioxin in this area developed as information became available regarding manufacturing processes which had the potential to produce unwanted toxic by-products including 2,3,7,8 - Tetrachlorodibenzo-dioxin (2,3,7,8 - TCDD). The suspected manufacturing processes include the production of certain pesticides, herbicides and hexachlorophene. In the spring of 1983, facilities which might have produced dioxin were identified and a sampling program was instituted. One site included in this survey was 80 Lister Avenue, the location of the former Diamond Alkali Company plant. Test results received in May, 1983 confirmed the presence of high concentrations of dioxin.

As part of its comprehensive investigative program following this discovery, the U.S. Environmental Protection Agency (USEPA), in conjunction with N.J. Department of Environmental Protection (NJDEP), sampled other areas in the Ironbound community. Locations where test results confirmed the presence of dioxin included several streets, a section of railroad track, a public swimming pool, a scrap metals plant and sections of the Morris Canal property and the Hildemann property immediately south of the scrap metals plant.

Status

Various short-term remedial measures were undertaken by both the NJDEP and the USEPA in order to prevent the spread of dioxin from the site pending cleanup. Because dioxin is highly insoluble in water and binds very strongly to soil particles, efforts were concentrated on preventing wind-blown soil migration. The site was fenced and geotextile fabric was placed on the ground and secured to anchor surface soils.

Remedial action at other areas where dioxin was found included street cleanups, vacuuming and scrubbing of the pool area, and containment along the railroad tract, at the Morris Canal property and at the Brady Iron and Metals, Inc. property. Additionally, soil was excavated around the Brady Iron and Metals site.
An Administrative Consent Order (ACO) for a long-term, comprehensive remedial action program was signed by the NJDEP and the Diamond Shamrock Chemicals Company in March, 1984. Under the Agreement, the company will fund and conduct the cleanup program under the supervision of the NJDEP. A comprehensive evaluation of the site to identify and gauge the extent of contamination by dioxin and any other toxic substances on the property constitutes the first phase of this program. This site evaluation plan was submitted to the NJDEP on April 19, 1984 and has been reviewed and revised. On-site work began in August, 1984. The site evaluation will be followed by a feasibility study to determine the most viable alternatives for remedial action.

In December 1984, a second ACO was executed by Diamond Shamrock Chemicals Company. The objective of this ACO is to remove dioxin from all affected areas in the Ironbound Community (other than 80 Lister Avenue & the Passaic River) for temporary storage at 120 Lister Avenue until permanent disposal can be secured.

To date, Diamond Shamrock has posted a letter of credit for approximately $16 million in order to conduct the work outlined in both ACOs. Of 97 New Jersey sites on the National Priorities List, Diamond Shamrock Chemicals Company is ranked 77th.
Site Name

D'Imperio Property
Route 322
Hamilton Township
Atlantic County

Site Description

The D'Imperio Property is an inactive open dump which encompasses approximately one acre. It is located about 100 yards south of the Motel Dennis on Route 322 and is surrounded by undeveloped woodland. A major residential development is located within a quarter-mile of the site and the surrounding land has the potential to be developed. The site is believed to have been an old excavation pit which was used to bury approximately 100 55-gallon drums. Approximately 50 corroded, partially exposed drums are visible on the surface. It has been reported that bulk liquid wastes have also been drained into this dump area. Unauthorized dumping of hazardous wastes probably occurred from the late 1960s until 1976.

Environmental Impact

Ground water contamination has been confirmed with chlorinated hydrocarbons posing a particular threat to ground water supplies. The Cohansey Aquifer has become contaminated. There are at least 31 potable water wells within 1.5 miles of the site. Until the site is secured from public access, human contact with the wastes will be a potential hazard.

Status

Numerous site inspections have been conducted by the New Jersey Department of Environmental Protection (NJDEP). A preliminary hydrogeologic study was conducted in 1980 by a private consultant. The United States Environmental Protection Agency's (USEPA) zone contractor has formulated a Remedial Action Master Plan (RAMP) for the site. A contract between USEPA and NJDEP was signed in September 1982 to fund a Remedial Investigation/Feasibility Study (RI/FS) and the construction of a fence at a total cost of $344,444 and $24,000 respectively. Site work for the Feasibility Study began in September 1983 and it is expected to be completed in the first quarter of 1985.

Of 97 New Jersey sites on the National Priorities List, the D'Imperio Property is ranked 14th.
Site Name

Dover Municipal Well #4
Hooey Street
Dover
Morris County

Site Description

The Dover Township Water Commission owns and operates the municipal well fields which are surrounded by residential homes and small businesses. Dover Municipal Well #4 is located on Hooey Street, approximately 1.5 miles east of Municipal Wells #1, #3, and #5 and 500 feet north of the Rockaway River. Dover Municipal Well #4 served as a high production well with a capacity of 1,455 gallons per minute (gpm) until it was taken out of service in August 1980 due to the high concentration of contaminants in the ground water. Standby Well #3 is temporarily replacing Well #4.

Environmental Impact

Volatile organics were first noted in Municipal Well #4 in early 1980 and by September of the same year the presence of chlorinated hydrocarbons was confirmed. Analyses of ground water indicated a combined concentration of 125 ppb of 1,1,1 trichloroethane and tetrachloroethylene. A shallow well, located within 500 feet of Dover Municipal Well #4 was found to contain similar pollutants, however, there is no definitive correlation between the two wells. Recently a well in Denville, one mile away from Well #4, began showing low levels of similar pollutants suggesting that the problem plume may be expanding.

The Dover Township Water Commission must secure a water supply that is adequate and reliable now that a major contributor (Well #4) to the town's system has been contaminated. Approximately 22,000 people are dependent on the Dover well system.

Status

The New Jersey Department of Environmental Protection's (NJDEP) Division of Water Resources (DWR) has conducted investigations to produce a site specific geological profile and determine the sources of the ground water contamination. NJDEP has also surveyed industry and commerce in Dover and sampled wells in the affected area. Some similar contaminant compositions have suggested possible connections among wells but no positive conclusions could be made.

Dover Water Commission conducted a three day pumping test to determine the stabilized concentrations of the contaminants at constant flow conditions. This test was inconclusive because it had to be cut short before constancy was established. A hydrogeological consultant to the Commission reviewed the situation and recommended the installation of 10 observation wells in order to locate the problem source.

Additional investigations are needed before enforcement actions can link possible contributory sources to the contamination of Well #4. However, a suspected responsible party is in consultation with DWR and the New Jersey Geological Survey regarding the installation of a ground water decontamination system at the responsible parties' facility.

Of 97 New Jersey sites on the National Priorities List, Dover Municipal Well #4 is ranked 95th.
Site Name
Duane Marine Salvage Corporation
Washington & Front Streets
Perth Amboy
Middlesex County

Site Description
The Duane Marine Salvage Corporation is located on approximately five acres in a populous urban area of Perth Amboy. The site is an abandoned hazardous waste processing, storage and transfer facility. It is bordered on the south by Washington Street and on the east by the Arthur Kill River. Tottenville is on the opposite side of the Arthur Kill River. An industrial park served as a northern boundary until July 1980 when it was destroyed by a fire which also engulfed Duane Marine and incinerated some of the waste. There are approximately 2,000 55-gallon drums which are improperly stacked. Some of the drums are corroding and appear to have leaked their contents. There is also a 250,000 gallon tank which has been slowly leaking polychlorinated biphenyls (PCBs). Presently there is nothing to prevent spills or leaks from migrating to soil or surface water. The security fence is in poor condition, the front gate remains open, and there is easy access through the abandoned building.

Environmental Impact
PCBs were detected in the sewer laterals beneath the site. In July 1980 there was a fire which substantially destroyed the premises leaving a vast amount of spillage and rubble which the New Jersey Department of Environmental Protection (NJDEP) determined hazardous in nature and which presented a significant risk of contamination to the surrounding environment and, in particular, to the Arthur Kill. There is still concern that hazardous substances may be discharging into the Arthur Kill from the runoff in the drum storage area. The Arthur Kill is used for commercial shipping and recreational purposes. It is also a critical habitat for short nose sturgeon.

Status
There has been ongoing litigation regarding this site since July 1979 when the City of Perth Amboy made allegations that the corporation was storing toxic and flammable material without the necessary permits. Despite NJDEP's repeated requests to remove all waste, the owners did not comply and the site remained virtually unchanged. Subsequently, in June 1981 the Administrator of the New Jersey Spill Compensation Fund authorized the use of $50,000 in Spill Fund money to secure the site in order to prevent unauthorized access and to conduct further investigations to determine any illegal or unknown connections to the sewer system.

NJDEP has requested that the United States Environmental Protection Agency (USEPA) initiate the cleanup, including the removal of drums, roll-offs and liquid waste, under an Immediate Removal Measure. NJDEP will conduct the remainder of the cleanup which will include the removal of the 250,000 gallon storage tank and any other necessary remedial action.

In August 1984, NJDEP proposed the Duane Marine site to the USEPA for inclusion on the National Priorities List (NPL), however, it was not selected for the NPL.

10/84
Site Name

Duck Island Landfill
Hamilton Township
Mercer County

Site Description

The Duck Island site is a 56-acre inactive landfill with a height of up to 50 feet above the surrounding wetlands. The site was originally granted a sanitary landfill permit in February 1969 for non-conforming use in an industrial park zone. The site is located three miles south of Trenton within a large fresh water marsh area that separates Duck Island from the mainland. It is bordered by Lamberton Road to the west, by a county park to the east, and by the Public Service Electric & Gas Tower easements to the north and south. The disposal of hazardous materials at the site is a possibility since the landfill was permitted to accept waste oils. There are numerous leachate seeps around the edges of the landfill. There are residences within 1/2-mile of the site.

Environmental Impact

Trees, shrubs, and grass show signs of stress. There is evidence of erosion due to runoff. Odors of unknown substances are noticeable on site. The release of toxic compounds to the air and surface waters from leachate seeps was documented in August 1982 by a United States Environmental Protection Agency (USEPA) Field Investigation Team. Contaminants that were detected include: benzene, vinyl chloride and toluene. Bordentown's White Horse well field, serving approximately 20,000 people is within two miles of the landfill. Surface water contamination is a possibility because of the landfill's proximity to the Delaware River.

The site is accessible to the public and has been used for recreation by dirt bikers and four-wheel drive vehicles. There is potential for dermal and respiratory exposure to arsenic, cadmium, chromium, lead, selenium, benzene, phenol, and vinyl chloride.

Status

The New Jersey Department of Transportation, the current property owner, plans to construct a highway interchange adjacent to the landfill. A portion of the site has been proposed for park land replacement.

In June 1984, the New Jersey Department of Environmental Protection (NJDEP) conducted the initial sampling after the installation of six shallow ground water monitoring wells. The monitoring wells were resampled by NJDEP in November 1984. Results which will determine the level of contamination of the leachate and surface water runoff, as well as the existence and extent of the contaminated plume will be available in December 1984.
Site Description

The Earle Naval Weapons Station (NWS) site is the area of the Station which is known as the Main Base. This site is located within the Outer Coastal Plain, characterized by gently rolling lands and low hills. The Main Base is relatively flat except for the Hominy Hills which traverse the central portion of the facility. The Main Base contains three main drainage basins and several smaller subbasins. Operations at this site focused primarily on the handling, storage, renovation and transshipment of munitions. Wastes generated at the Earle NWS include ordnance materials, grit and paint, paint scrapings, solvents, paint sludges, ammonium picrate, lead bullets, zinc, lead and titanium. There are approximately 30 areas of various sizes on the Main Base of NWS where these wastes and other domestic wastes were disposed of.

Environmental Impact

Although there has not yet been conclusive sampling to identify the source or extent of contamination in the soil, ground water and surface water, there is concern for potential impacts to the underlying aquifers. The soil at this site is extremely permeable allowing for rapid migration to several aquifers including the Cohansey Sand, Kirkwood, Vincentown, Red Bank Sand, Navesink, Mt. Laurel Sand, Wenonah, Marshalltown and Englishtown. Approximately 1,200 people within a three-mile radius depend on ground water from these aquifers for their potable water supply.

Disposal pits are unlined and lack adequate cover. There are no dikes or leachate diversion systems thus increasing the probability of contaminant migration.

Status

In August 1983 the New Jersey Department of Environmental Protection, the Monmouth County Health Department and the Colts Neck Health Department developed a ground water and surface water sampling plan to identify the source and extent of the potential contamination.

In October 1984, the Earle Naval Weapons Station was selected by the United States Environmental Protection Agency for inclusion on the Interim National Priorities List (NPL). Of 97 New Jersey sites on the NPL, the Earle Naval Weapons Station is ranked 69th.
Site Name

Ellis Property
Evesham Township
Burlington County

Site Description

Ellis property is an approximate 24 acre tract of land on the east side of Sharp Road about 2000 feet north of Medford-Evesboro Road. The site is in a semi-rural farming area surrounded by very low density suburban housing and was utilized by the property owner as a drum refurbishing and recycling operation during the 1970s. Operations apparently ceased at the site in approximately 1978 following a fire on the property. Remaining after the fire were the frames and partial structure of three (3) storage warehouses housing numerous empty and a minimal number of leaking drums in various stages of deterioration along with many other such drums scattered throughout the property. Site inspections by the New Jersey Department of Environmental Protection (NJDEP) have indicated various areas of chemical spillage onto the ground surface. Limited soil and drum sampling have indicated the presence of hazardous substances including hydrochloric acid and low concentrations of polychlorinated biphenyls (PCBs).

Environmental Impact

The property is located on the outcrop of the Hornerstown Sand, a poor source of ground water supply. A review of well records for the area indicate that most homes in the area with potable wells tap the Mt. Laurel/Wenonah Sands Aquifer with a limited number drawing water from the Englishtown Formation. Within a mile of the site are two (2) of the seven (7) Evesham Township Municipal Utility Authority (ETMUA) Wells which tap the Magothy-Raritan Aquifer. Sharps Run, an intermittent stream is located less than a quarter of a mile north of the site.

Ground water in the vicinity serves as the potable water source for some 900 area homes and also provides irrigation for farmland. The ETMUA Wells serve approximately 5,500 households. Both ground water and surface water contamination are possibilities.

Status

Initial site inspections were performed by the NJDEP in early 1981. Subsequent sampling by NJDEP indicated the presence of hazardous substances. A Departmental Order to clean up the site was issued to the owners of the Ellis Property in November 1981. Evesham Township ordered the property owner to erect a fence without results. Under NJDEP's "Small Drum Dump Cleanup Program", the following work has been completed at the site to date: partially filled acid drums were pumped into recovery drums and disposed of by a hazardous waste contractor (the empty drums were staged on the property for future removal); flammable liquid and solid substance drums were removed and disposed of by a hazardous waste contractor; the surficial acid-contaminated soil and contaminated sludge piles were removed by a hazardous waste contractor; one ton of lime was rototilled to a depth of one foot to neutralize an acid-contaminated soil area.

NJDEP submitted the Ellis Property to the United States Environmental Protection Agency (USEPA) for approval of a Cooperative Agreement to commit $450,000 for the performance of a Remedial Investigation/Feasibility Study (RI/FS) at the site. USEPA approved the Cooperative Agreement in October, 1984.

Of 97 New Jersey sites on the National Priorities List, the Ellis Property site is ranked 79th.

3/85
Site Name

Emmell's Septic Landfill
128 Zurich Avenue
Galloway Township
Atlantic County

Site Description

This is a 38-acre inactive landfill which has not been in operation since approximately 1978. Site inspections have revealed the presence of drums filled with non-hazardous paint sludge, gas cylinders, garbage and general debris. In addition, the facility may have accepted industrial sludge and chemical waste.

A few residential homes are scattered throughout this rural area and small businesses are located within five miles of the site.

Environmental Impact

Soil, ground water and surface water contamination are all of concern. Originally, two ponds of standing water were on site, but one of these ponds has been filled in. Nearby are Morse's Mill Stream and Clark's Mill Stream.

Status

A Notice of Prosecution was issued on April 29, 1980 and on July 9, 1985 the site was proposed to the United States Environmental Protection Agency for inclusion on the National Priorities List.
Site Name

Evor-Phillips Leasing Company
Old Water Works Road
Old Bridge Township
Middlesex County

Site Description

The Evor Phillips Leasing Company site is presently occupied by the Industrial Silver Company, Inc. (a division of Spiral Metals Company, Inc.). The site is comprised of 5.8 acres, situated near three water bodies: Prickett's Brook, Prickett's Pond, and Tennett's Pond. It is located across from CPS Chemical Company, also a Superfund site. Presently there are three buildings on the property. It is alleged, and documented by the New Jersey Division of Criminal Justice, that as many as 5,000 drums containing chemical materials may be buried on site. Approximately twelve drums are visible at the surface. One of these drums contained numerous laboratory bottles, two of which were labeled Nitroguanidine which is a shock sensitive explosive chemical.

Environmental Impact

Although there is no evidence to date that the Evor Phillips Leasing Company is responsible, there has been contamination of nearby surface water bodies and ground water. The City of Perth Amboy draws most of its potable water from suction wells and three pump wells adjoining Tennett's Pond; these tap the Old Bridge Sands Aquifer.

Status

In May 1982, the New Jersey Department of Environmental Protection (NJDEP) contracted with consultants to determine if illegal drum disposal and landfilling of hazardous substances had occurred. The study involved topographic mapping of the site, aerial infrared photography, and a ground conducted magnetometer survey. In February 1983, the Nitroguanidine was removed by NJDEP to the Earle Naval Ammunition Depot in Colts Neck, New Jersey for detonation and disposal. The United States Environmental Protection Agency (USEPA) developed a Remedial Action Master Plan which was submitted to NJDEP for review in November 1983. NJDEP had requested that the Industrial Silver Company initiate an exploratory excavation of the site. Negotiations with Industrial Silver Company, Inc. were ongoing until recently when they and Evor Phillips filed for bankruptcy under Chapter 11.

Of the 97 New Jersey sites on the National Priorities List, the Evor Phillips site is ranked 73rd.
Site Name

Ewan Property
Shamong Township
Burlington County

Site Description

The Ewan Property is a privately owned 43-acre parcel located 2000 feet from Tuckerton Road, accessible via a private dirt road. The surrounding area is heavily wooded and undeveloped. A flowing stream serves as a northern boundary of the site while thick woods and shrubbery encompass the southern and western boundaries. An area consisting of approximately four acres has been identified as the illegal burial site of numerous 55-gallon drums containing hazardous waste. Many of the drums are crushed or deteriorating.

Environmental Impact

Analyses of bulk liquid, soil and ground water samples indicate the presence of petroleum hydrocarbons, volatile organic substances and heavy metals. Low level air contamination, characterized by a pesticide-like odor, has been monitored in some areas.

There is evidence of contamination in the shallow aquifer directly beneath the site. The immediate and significant risk involved is the off-site migration of contaminants into the Cohansey Aquifer which is the sole source of potable water in this portion of Burlington County. There are no alternate potable water systems that could be utilized should the contamination spread into the subsurface zone. The buried drum site is less than 2,000 feet from the closest group of single family residences, all relying on private potable water wells.

An unnamed tributary of Springers Brook runs along the north and west sides of the property. As this stream flows year-round through cedar swamps, pollution of the surface water from interaction with the shallow ground water could cause serious damage to natural resources in the area.

Status

In March 1983, a Directive Letter mandating specific remedial measures pursuant to the New Jersey Spill Compensation and Control Act was sent to the property owner. Further investigation is needed to determine the extent of the subsurface contamination problem and to identify responsible parties.

Presently the Ewan site is a United States Environmental Protection Agency (USEPA) enforcement lead, eligible under Superfund. In February 1984, the New Jersey Department of Environmental Protection (NJDEP) submitted a request to the USEPA Emergency Response Group for the immediate removal of buried drums from the Ewan Property. NJDEP also requested that USEPA's Field Investigation Team sample private potable wells and surface water downstream from the site.

Of the 97 New Jersey sites on the National Priorities List, the Ewan Property site is ranked 27th.
Site Name

Exxon Station
Route 47
Malaga, Franklin Township
Gloucester County

Site Description

This is an inactive service station property previously owned and operated by both the Exxon Company, USA and Citgo Corporation.

In February 1981 when the station was operated by the Exxon Company, leaks were detected in two of the 2,000-gallon underground tanks containing unleaded gasoline. These tanks were then pumped out and taken out of service. In May 1981 Exxon ceased its operation at this site but the site continued in use as a service station under the Citgo name. In October or November 1981 Exxon's remaining tanks were removed and Citgo installed replacement tanks. Citgo ceased operation of the property in September 1982.

Environmental Impact

Contaminated ground water is the primary concern. The private well servicing the tavern across the street and two wells servicing the Malaga Mobile Home Park have been sealed and replaced by the Exxon Company which is currently completing a comprehensive hydrogeologic investigation.

Status

On July 9, 1985 this site was proposed to the United States Environmental Protection Agency for inclusion on the National Priorities List for Superfund.

10/85
Site Name

Fair Lawn Well Fields
Fair Lawn Borough
Bergen County

Site Description

The Borough of Fair Lawn operates three well fields to supply potable water to the approximately 32,000 residents of the municipality. The three well fields are: Westmoreland, located in the general vicinity of 11th Street and Henderson Boulevard; Memorial, located in the general vicinity of Bellair Avenue and Canger Place; and Cadmus, located on Morlot Avenue and 17th Street.

Environmental Impact

Westmoreland Field contains the wells which are the most heavily contaminated with volatile organic compounds; chloroform, carbon tetrachloride and tetrachloroethylene were among the major contaminants. Two industrial sites in the industrial park located near the Westmoreland Well Field have been identified as the primary sources of pollution.

Status

Fair Lawn Borough completed a hydrogeological investigation in January 1982 which outlined alternative procedures for treating the well fields and identified sites for the construction of new water supply wells. In the interim, the Westmoreland Well Field was isolated from Fair Lawn's drinking water supply. The ground water is being pumped directly into Henderson Creek. The creek discharge is aerating the ground water, essentially eliminating the volatile organics, before it reaches the Passaic River. Until the ground water is determined to be potable, the Borough of Fair Lawn supplements its water supply with water from the Hackensack Water Company and Passaic Valley Water Commission facilities.

The New Jersey Department of Environmental Protection (NJDEP) directed two industries to conduct ground water and soil sampling to verify and define chemical contamination on their plant sites and to locate the source(s) of any pollutants. In May 1983 one industry investigation located many 55-gallon drums that had been buried. Analysis of content samples revealed the presence of hazardous substances.

Enforcement actions yielded two Administrative Consent Orders which were signed on March 21, 1984 by two responsible parties (committing $3.2 million). Under the orders, both parties are required to study and remedy conditions on their properties, pay the expense for a water treatment unit at the Westmoreland Well Field and reimburse Fair Lawn Borough for past expenses related to the well water problems. The NJDEP and the USEPA enforcement groups will monitor progress pursuant to the orders and, with satisfactory progress, the USEPA will move to "delist" the site from the National Priorities List at an appropriate time in the future.

Of 97 New Jersey sites on the National Priorities List, the Fair Lawn Well Field site is ranked 51st.
Site Name

Federal Aviation Administration
Atlantic City
Atlantic County

Site Description

This site is located on a 5,059 acre parcel of land which is owned by the Federal Aviation Administration (FAA). The FAA property is located to the west of the Garden State Parkway with Galloway Township to the north and Egg Harbor to the south. This area is widely used for aviation activities including a base for the Air National Guard, the Atlantic City Airport and the National Aviation Facilities Experimental Center (NAFEC). Jet fuel is stored on site and used extensively in varying capacities including training and experimental and operational tasks.

During the period of 1943 to 1958 the Navy operated a landfill at the site, which is now covered by a hanger, a parking lot and a ball field. Other areas and operations of concern include a salvage yard, an abandoned fuel farm and a photo lab.

Environmental Impact

As a result of a study commissioned by the Atlantic City Municipal Utilities Authority (ACMUA) to assess potential pollution threats to current and proposed ACMUA wellfields, five potentially long-term problem spots were discovered on the FAA grounds. Nineteen groundwater monitoring wells were installed near problem spots to aid in the evaluation of any threats of ground water contamination. Aquifer characteristics were defined and it was determined that ground water, which ranges from 3 to 23 feet below the surface at test areas, is part of the Upper Cohansey Aquifer, and that only shallow localized contamination exists below the five problem sites. Surface waters exist on site with the largest being the 250 million gallon Kuehnle Reservoir.

Conclusions from the ACMUA study indicate that only two of the five sites pose a threat and that there is a greater probability of horizontal contaminant migration to surface water than vertical contaminant migration to the depths of the Cohansey Aquifer where potable ground water is obtained. A system of eight shallow (Upper Cohansey) observation wells and eight deep (Lower Cohansey) observation wells ring the new ACMUA wellfield to monitor ground water quality and pumping effects.

Status

Remedial activities were recommended at the five problem sites and the FAA initiated preliminary remedial measures including the inventory of hazardous waste and the application of a polyvinyl cover at one site. The FAA has negotiated a contract to identify potential aircraft fuel pollution sources, which includes a new hazardous waste plan, and an upgrading of spill control plans and containment measures.

In May 1985, the New Jersey Department of Environmental Protection (NJDEP) expects to enter into an Administrative Consent Order with the FAA for remedial action. The NJDEP anticipates the initiation of a Remedial Investigation/Feasibility Study in the fall of 1985. The FAA site is included in the NJDEP's Management Plan for hazardous waste site cleanups.

3/85
Site Name
Florence Land Recontouring Landfill
Cedar Lane Extension between Route 295
and the New Jersey Turnpike
Florence, Mansfield and Springfield Townships
Burlington County

Site Description
This is an inactive site covering 29 acres in a mixed residential and
agricultural area where Florence, Mansfield and Springfield Townships merge.

The landfill was operated as a disposal facility from November, 1973 until
November, 1981 and was permitted to accept sanitary and industrial waste,
including septage and sewage sludge. For approximately one year during this
period, the landfill was identified as JEMS and was operated by Jersey
Environmental Management Services. The landfill's history of environmental
problems, which included observed leachate seeps, ground water contamination and
air emissions, led to the issuance of a Consent Judgement by the New Jersey
Superior Court in January, 1979 to close the landfill. In July, 1981 Florence
Land Recontouring, Inc. submitted a closure plan and the operation terminated in
November, 1981.

Environmental Impact
Although a leachate collection system exists at the site, design deficiencies
and inconsistent operation have resulted in excessive levels of leachate within
the landfill. This situation has caused ground water contamination and
surficial leachate seeps near the banks of the Assicunk Creek which is used for
recreation and irrigation.

Ground water sample results indicate the presence of volatile organic compounds
in the shallow aquifer and in the deeper Magothy-Raritan aquifer, which is the
primary ground water source for the local community. Similarities of chemical
constituents were found in the landfill leachate and in some private wells. In
July, 1983 the Burlington County Health Department advised residents along Cedar
Lane Extension not to drink their well water because of potential contamination
from leachate migration. There are approximately 16 public wells and over 1,800
private wells within a three mile radius of the site.

Preliminary air monitoring has indicated the presence of volatile organics
emanating from manholes and monitoring wells at the landfill. Vents equipped
with carbon filters were installed in order to control the air emissions.
However, residents have continued to notice odors emanating from the landfill
after the installation of the vents and have expressed concern regarding the
proper maintenance of the carbon filters.

Status
A Cooperative Agreement was signed by the U.S. Environmental Protection Agency
(USEPA) and the N.J. Department of Environmental Protection (NJDEP) on March 28,
1984, providing funds in the amount of $434,225 to conduct a Focused Feasibility
Study and a Remedial Investigation/Feasibility Study. The Focused Feasibility
Study will address the immediate need to identify and examine methods to modify the present leachate collection system and will be performed concurrently with the full length, more comprehensive study.

Burlington County has also hired a contractor to complete a hydrogeological assessment of the site and is presently preparing an Environmental Impact Statement as part of its evaluation process in determining the location of a County Solid Waste Complex. On December 24, 1980 the Board of Chosen Freeholders adopted a resolution which identified a 600-acre parcel surrounding the Florence Land Recontouring Landfill as the probable choice.

Of 97 New Jersey sites on the National Priorities List, the Florence Land Recontouring Landfill site is ranked 38th.
Site Name
Fort Dix Landfill
Fort Dix
Burlington County

Site Description

The Fort Dix Landfill encompasses approximately 126 acres at the southwestern boundary of McGuire Air Force Base (MAFB). This site is located immediately south of the intersection of Pointsville Road and Juliustown-Browns Mill Road, south of Fort Dix. The natural geologic setting surrounding the landfill is a sandy coastal plain with a mixture of pine, oak and scrub vegetation. The area is drained by numerous creeks, one of which originates northeast of the landfill and flows southward. In the past, the landfill was used for the disposal of municipal wastes that were generated at Fort Dix. From the 1970s to the 1980s, MAFB disposed of chemical wastes in the Fort Dix Landfill. The hazardous substances disposed of at this site include petroleum products, thinners (methyl ethyl ketone), strippers (methylene chloride) and paints. The landfill was closed in July 1984. The recently filled landfill area is covered with a sand cap and sprayed with an erosion retarding agent.

Environmental Impact

The U.S. Army conducted ground water sampling around the landfill which indicated the presence of chloroform; 1,1,1 trichloroethane; methylene chloride; toluene; and 1,1 dichloroethylene. The landfill is in the recharge area of the Kirkwood Aquifer. Approximately 7,300 people within a three-mile radius depend upon ground water for their potable water supply. The closest potable well is on a domestic farm, situated 3,500 feet south of the Fort Dix Landfill.

Methylene chloride and trichloroethane were also detected in surface water samples taken from Cannon Run, downstream of the landfill, indicating the possibility of downstream contaminant migration from the landfill. In addition, Cannon Run originates adjacent to the landfill and flows into Rancocas Creek which is about one mile south of the site and is used for recreation.

Although the landfill is covered with a sand cap, this is not an adequate impervious cover and there are no diversion structures or dikes surrounding the landfill.

Status

Since November 1983 the U.S. Army has been monitoring ground water quality on site. The Army has also conducted hydrogeologic surveys to determine the source and extent of contamination. Presently the New Jersey Department of Environmental Protection (NJDEP) is negotiating an Administrative Consent Order with the U.S. Army to undertake necessary remedial actions. NJDEP and the Burlington County Health Department have already accepted the Army's scope of work which includes three phases of investigative efforts to gather data, define the contaminated plume and develop remedial action alternatives.

In October 1984, the Fort Dix Landfill was selected by the United States Environmental Protection Agency for inclusion on the National Priorities List (NPL). Of 97 New Jersey sites on the NPL, Fort Dix Landfill is ranked 68th.

10/84
Site Names

Fried Industries
East Brunswick Township
Middlesex County

Site Description

The Fried Industries site is a 26-acre parcel of land located in a rural/suburban area at 11 Fresh Ponds Road. The area was previously a clay pit. Fried Industries presently formulates industrial cleaners and cleaning agents on the property. The site lies adjacent to a wetlands area and is near Farrington Lake and the Lawrence Brook, a tributary of the Raritan River. Two East Brunswick Water Department wells lie within three miles of the site and these tap the Farrington Aquifer. There are also approximately 63 private wells within a one-mile radius of the site. Roughly 75 surface drums and an unknown number of buried drums, some of which are leaking and corroded, have been improperly stored on the property. Sampling done thus far has shown that the drums contain hazardous liquid organic chemicals including: tetrachloroethylene, chloroform, benzene and copper.

Environmental Impact

Both ground water and surface water qualities are threatened by contamination from the site. Limited well water sampling from several nearby residences indicated contamination with low levels of various organic chemicals that may be related to the site. Roughly 38,000 people live within three miles of the site and they are served by area ground water. A limited air pollution survey has detected on-site levels of organic vapors above background levels.

Status

In December 1983, the United States Environmental Protection Agency (USEPA) inspected the property under a search warrant and discovered the improperly-stored chemicals and contamination. The site was submitted by USEPA, Region II to USEPA Headquarters for inclusion on the National Priorities List in May, 1984 and was approved for inclusion in October, 1984.

Of 97 New Jersey sites on the National Priorities List, the Fried Industries site is ranked 88th.
Site Name

Friedman Property
Routes 537 & 539
Upper Freehold Township
Monmouth County

Site Description

The Friedman Property is an inactive landfill situated in a rural farming area just across the boundary from Plumsted Township and north of the intersection of County Routes 537 and 539. This roughly 2-acre site is bordered by an unnamed stream which flows into Lahaway Creek, a tributary of the Delaware River. The Friedman Property was used for the disposal of household debris and was suspected (based upon reports and signed affidavits submitted to the New Jersey Department of Environmental Protection) of having accepted hazardous wastes in the late 1950s to early 1960s. The site has since been covered with soil and is inactive.

Environmental Impact

Initial soil and water samples indicated contamination. The source aquifer in the area was thought to be contaminated. Ground water in the area is used as a potable water supply. Further investigation revealed that there have not been significant hazardous waste disposal operations conducted at the Friedman Site. Contaminants present in the stream sediment samples are attributed to road runoff and not to previous disposal activities. Contamination in the potable well samples is ascribed to glues used in the well joint couplings. There are minute quantities of both organic and inorganic compounds on site, but these are being contained at the site and do not appear to be migrating in the air, ground water or surface water pathways. These compounds do not pose significant threats to the public health or welfare. Direct contact with these compounds or contaminated soils is improbable unless excavations are made at the site in the future.

Status

Four monitoring wells were installed at the site by the New Jersey Department of Environmental Protection (NJDEP) in 1980. A Cooperative Agreement between the United States Environmental Protection Agency (USEPA) and NJDEP was signed in September 1982, committing $300,000 to the performance of a Remedial Investigation/Feasibility Study (RI/FS). A contract to perform the RI/FS was awarded to an engineering firm in 1983. The results of the study were released at a public meeting held by NJDEP in July 1984. Based on the RI/FS, NJDEP has submitted a Record of Decision to USEPA which recommends annual ground water monitoring for the next five years as a precautionary measure. It also suggests that Upper Freehold Township should include information with regard to the investigation in the deed to the property.

Of 97 New Jersey sites on the National Priorities List, the Friedman Property is ranked 82nd.
Site Name
GEMS Landfill
Hickstown Road
Gloucester Township
Camden County

Site Description
The Gloucester Environmental Management Services (GEMS) Landfill encompasses approximately 60 acres. This presently inactive site is owned by Gloucester Township and leased to GEMS. Although the site is zoned for industrial purposes, surrounding land use is predominantly residential. The landfill has a history of operating in various capacities for more than twenty years. Prior to 1974, organic solvents and other industrial chemicals were disposed of in areas below the ground water table.

Environmental Impact
Preliminary geophysical investigations by the New Jersey Department of Environmental Protection (NJDEP), Division of Water Resources, indicated that the landfill is the cause of surface and ground water contamination. Volatile organic chemicals have been detected in monitoring wells, private wells, leachate, and stream samples. Most of the ground water contamination emanating from the site is at a shallow depth. Surface leachate is contaminating Holly Run Stream and Briar Lake.

Status
In May 1983 the United States Environmental Protection Agency (USEPA) funded an immediate removal action which involved the installation of a culvert to prevent ongoing flooding and the evaluation of ground water contamination flow to determine if emergency action is necessary to alleviate leachate migration. On June 23, 1983 a contract between USEPA and NJDEP was signed to commit $500,000 for a Remedial Investigation/Feasibility Study (RI/FS). The draft Feasibility Study was completed in July 1984. Additionally, the USEPA and NJDEP are considering an immediate removal action which would entail a ground water recovery system to alleviate the migration of leachate to Holly Run Stream.

Of 97 New Jersey sites on the National Priorities List, GEMS is ranked 5th.
Site Name
Givaudan Corporation
Clifton
Passaic County

Site Description
Givaudan Corporation is an active fragrance manufacturing facility, encompassing approximately 55 acres, at 125 Delawanna Avenue. Givaudan uses 2,4,5 trichlorophenol (TCP) in the manufacturing of hexachlorophene which it sells for use in products such as medicated soaps. It is believed that TCP is the source of on-site dioxin contamination.

Environmental Impact
On-site sampling and analysis which was conducted from June until September 1983 confirmed the presence of dioxin at levels of 22 parts per billion (ppb). (The action level for dioxin in residential areas is one ppb).

As a precautionary measure, approximately 170 samples from areas both on and off-site were analyzed. Results did not indicate detectable levels of dioxin at any of the off-site locations.

Status
In July 1983, access to the limited contaminated areas within Givaudan Corporation were restricted to employees only. The dioxin contaminated areas within the manufacturing section were covered with tarpaulins or fenced.

In April 1984, the New Jersey Department of Environmental Protection (NJDEP) began negotiations with Givaudan for a Remedial Investigation/Feasibility Study. NJDEP approved Givaudan's site investigation plan in June 1984. During the last two weeks of July, 1984, Givaudan, along with NJDEP, collected an additional 246 samples in the previously identified areas of contamination in order to determine the extent of contamination. Givaudan has completed the on-site data collection.

Presently, NJDEP is planning to meet with Givaudan to determine appropriate remedial action alternatives. An Administrative Consent Order which will require Givaudan to implement the cleanup is expected to be finalized by the end of 1984.
Site Name

Global Landfill/Reclamation
Ernston Road
Old Bridge Township
Middlesex County

Site Description

Global Landfill/Reclamation is a 50 acre landfill located in a salt marsh off Ernston Road between Route 9 and the Garden State Parkway. Cheesequake Creek which leads to Raritan Bay is adjacent to the landfill and separates the landfill from Cheesequake State Park.

Records indicate that this landfill has been in operation prior to the early 1970s. In 1981 the landfill received an engineering design approval. This approval was revised in 1982 and the landfill was authorized to operate as a sanitary landfill permitted to accept municipal waste, bulky waste, vegetative waste and dry industrial waste.

Global Landfill was ordered closed by the New Jersey Department of Environmental Protection (NJDEP) in May of 1984 after the landfill experienced a structural failure on April 1, 1984. The landfill's instability on its south site resulted in a landfill fracture measuring 300' x 75' x 50.' The collapse resulted in a break in a retaining dike and displacement of the adjacent wetlands.

Environmental Impact

Priority pollutant analysis of three leachate samples taken in the spring of 1984 have indicated the presence of methylene chloride, toluene, trichloroethylene, benzene and chlorobenzene. To assess the impact of this leachate on water quality and wetlands biot, the Office of Science and Research initiated a sampling program in June of 1984. This study did not reveal any adverse impacts. Uncontrolled leachate from the landfill remains as a possible threat to ground water contamination.

Status

Global Landfill was required by the Superior Court of New Jersey, Chancery Division, Middlesex County, to retain a consultant to prepare a complete remediation plan for the slope failure and dike breach. A regrading and covering plan for the southeast slope of the landfill was authorized by the Division of Waste Management on June 9, 1984. Remedial construction started shortly thereafter on July 17, 1984. Plans for closure and post-closure are currently being pursued.

On July 9, 1985 the NJDEP submitted Global Landfill to the United States Environmental Protection Agency (USEPA) at Region II for Superfund consideration. Global Landfill is included in NJDEP's Management Plan for hazardous waste site cleanups and it will be addressed with state funds if necessary.

9/85
Site Name
Goose Farm
(Off) Route 539
Plumsted Township
Ocean County

Site Description
Goose Farm is one of seven "Plumsted" sites in the Ocean and Monmouth County area. It is located off Route 539, approximately three miles northeast of New Egypt in Plumsted Township. All of the Plumsted sites are within approximately a twenty square-mile rural farming area. During the late 1960s and early 1970s an excavated area of the site was used for the disposal of bulk liquid and drummed wastes.

Environmental Impact
Investigation has revealed that the disposal of bulk liquid chemicals has contaminated the source aquifer and the soil. Contaminated ground water from the site discharges into Crosswicks Creek. The population in the surrounding area is dependent upon ground water for potable and irrigation purposes.

Status
Initial remedial action transpired from August, 1980 until February, 1982 and entailed the excavation of all containers, as well as several thousand tons of contaminated soil and debris. A water treatment system was installed to remove gross contamination from the soil and ground water. The cost for this initial remedial action including the installation of the water treatment system was $7.5 million. The New Jersey Department of Environmental Protection (NJDEP) entered into a Cooperative Agreement with the United States Environmental Protection Agency (USEPA) on September 23, 1982 to commit $210,000 for the performance of a Remedial Investigation/Feasibility Study (RI/FS). A contract for the RI/FS was awarded by NJDEP in December, 1983. Site access was secured via a Court Order and field work was initiated in February, 1984. The study is presently underway and nearing completion. Design funding is scheduled for the second quarter of Federal FY '85.

Of 97 New Jersey sites on the National Priorities List, Goose Farm is ranked 36th.
Site Name

Green Acres Landfill
Johnsonburg-Greendell Road
Frelinghuysen Township
Warren County

Site Description

This is the site of an inactive landfill which was closed by the New Jersey Department of Health in 1972 and was subsequently sold to the Johnsonburg Realty Company.

The site contains approximately 150 drums, most of which are empty. Sampling of the 20 drums containing waste indicated the presence of chloroform, toluene, ethyl benzene and 1,1,1 trichloroethane. These drums are in various stages of decomposition and some are leaking.

The site is located approximately 1½ miles northwest of the Pequest River and approximately one mile southeast of Bear Creek, a tributary of the Pequest River. Ponded water is located in a natural depression to the east of the site within 2,000 feet of the dumping area. The Warren County Soil Survey indicates a natural spring to the northeast of the site.

Environmental Impact

Although there is concern about groundwater contamination, a 1982 analysis of potable well samples from seven private wells in the vicinity of the landfill did not indicate the presence of volatile organic contaminants.

Status

An investigation is currently underway for the identification of potentially liable parties.
Site Name
Hamms Sanitary Landfill
Lafayette Township
Sussex County

Site Description
Hamms Sanitary Landfill was a regional facility utilized by 46 municipalities in Sussex, Morris and Passaic Counties. An unknown quantity of hazardous substances has been disposed of on site. The landfill is adequately covered. A leachate division system was recently installed and collected contaminants are being disposed of off site to the Sussex County Municipal Utilities Authority. In December 1984, the New Jersey Superior Court ordered the Hamms Sanitary Landfill to terminate operations.

Environmental Impact
Sample analyses of ground water from site monitoring wells and surface water from leachate pools revealed the presence of several contaminants including chlorobenzene, toluene, ethylbenzene, 1,2 dichlorobenzene, and 1,1,2,2 tetrachloroethane. These test results indicate contamination of the shallow aquifer underlying the site. Although this aquifer is not used for potable water, it discharges into the headwaters of Paulins Kill River. The deeper aquifer, which is the potable water source for approximately 91 residential and 47 commercial wells, remains vulnerable to contaminant migration from the shallow aquifer.

During wet weather the contaminated shallow ground water rises and flows into Meadow Brook, a trout maintenance stream which has already experienced a fish kill. Leachate seepage into the adjacent marshland has caused ground deterioration and dead timber. (Additional sampling for ground water contamination during a period of heavy rainfall is needed to confirm the observed release.)

Hamms Sanitary Landfill is only 60 feet from fresh water wetlands and 4,000 feet from the Blue Heron Preservation area. Surface water within three miles downstream of the site is used for fishing and recreation.

Status
The New Jersey Superior Court ordered the landfill closed due to the potentially unstable slope conditions. The Sussex County Board of Chosen Freeholders has initiated the process to acquire an upland tract, adjacent to the site, for use as a new landfill.

In 1984 NJDEP proposed the Hamm's Sanitary Landfill for inclusion on the National Priorities List (NPL), however, the United States Environmental Protection Agency did not accept this site for the NPL. Site cleanup will be addressed with State funds if necessary.

10/84
Site Descriptions

The Helen Kramer Landfill site, which closed in March 1981, originally operated as a sand pit until approximately 1963-1965 when landfilling operations began. Located just south of Jessup Mill Road and west of State Route 45, the landfill is roughly 60 acres in area and 100 feet deep. Edwards Run, a tributary to Mantua Creek, borders the site. The landfill is known to have accepted municipal refuse, dewatered sewage sludge, septic tank pumpings, construction debris, and liquid industrial waste. It is also suspected of accepting an estimated 500,000 gallons of chemical waste.

Environmental Impact

The site is known to be contaminating surface water and possibly the underlying Mount Laurel/Wenonah Aquifer. Leachate has been observed discharging to Edwards Run. Analyses of ground water, stream and leachate samples show evidence of contamination with benzene, chloroform, 1,2 dichloroethylene, methylene chloride, nickel and various other chlorinated aromatics, metals and ethers. Several incidents of underground fires may have been the result of spontaneous combustion due to improper landfill construction and/or lack of proper methane venting. One underground fire at the site in 1981 burned for approximately two months, emitting noxious fumes and carrying airborne toxic contaminants to surrounding areas. The extent of ground water contamination is unknown. Ground water is used for the area's drinking water supply, while the surface water downstream of the site is used for irrigation.

Status

Landfill designs submitted in 1973 and 1974 were judged inadequate by the New Jersey Department of Environmental Protection (NJDEP). In 1974, NJDEP issued a Department Order, Notice of Prosecution and Notice of Intent to Deny Renewal of Approved Registration for improper landfill operation and contamination of State waters. In 1974, NJDEP limited the landfill's operation to receiving only municipal refuse, leaves, tree stumps, sewage sludge and septic tank waste. Operations continued through 1976 despite several prosecutions by NJDEP. Following notification of registration revocation by NJDEP, design modifications were submitted and found to be unsatisfactory in April 1977. In March 1981, the court ordered a cessation of operations. A draft Remedial Action Master Plan was completed by the United States Environmental Protection Agency (USEPA) in April 1983 and used to develop the scope of the Remedial Investigation/Feasibility Study (RI/FS) that is now in progress. In September 1983, NJDEP signed a Contract with USEPA committing $425,000 for a RI/FS which began in February 1984. The contractor has completed preliminary work; well drilling, fence construction and sampling plans are in progress. A public meeting was held in April 1984 to discuss the contractor's work plan. A public meeting was also held in June to discuss area population growth as affected by the landfill. Federal funding for the engineering design is scheduled for the first quarter of FY '85.

Of 97 New Jersey sites on the National Priorities List, Helen Kramer Landfill is ranked 2nd.
Site Name

Henry Harris Landfill
Harrison Township
Gloucester County

Site Description

The Henry Harris site is an inactive landfill located just off Route 77. The site occupies an area of approximately thirty acres and is characterized by a flat top surface with very steep slopes and a thickness of roughly 40 to 50 feet. The site lies within one-half mile of Raccoon Creek; Mullica Hill Pond is about two miles downstream of the site while Ewan Lake is just over a mile upstream. When the facility was active, it accepted municipal refuse, demolition materials, sewage sludges and industrial refuse. Both solid and liquid hazardous wastes have been found at the site. Initial analyses have shown contamination by both metals and solvents including 1,1,2, trichloroethane, n-propylbenzene, ethylbenzene and toluene.

Environmental Impact

Approximately 1,500 people within a three-mile radius of the site rely upon area ground water as a potable water source. Nearby surface waters are used for recreation, such as fishing and boating. The potential exists for both ground water and surface water pollution emanating from this site.

Status

The landfill ceased operations in April, 1981 following a hearing that resulted from the issuance of an Administrative Closure Order by the New Jersey Department of Law and Public Safety. However, the landfill was never completely closed according to the proper procedures. In January 1984, a complaint was filed in the Superior Court of New Jersey on behalf of the New Jersey Department of Environmental Protection (NJDEP) against the landfill owners and operators in order to have them submit and implement a proper closure plan. The owners did not respond and a default judgment is being sought. Subsequently, in April 1984, an application was submitted to the United States Environmental Protection Agency (USEPA) by NJDEP for inclusion of the site on the National Priorities List (NPL). The site was not accepted for inclusion on the NPL. However, the site will be incorporated into New Jersey's Management Plan for the cleanup of hazardous waste sites.
Site Name
Hercules Incorporated
Greenwich Township (Gibbstown)
Gloucester County

Site Description
The approximate 350-acre tract of land owned by Hercules Incorporated is located on the bank of the Delaware River bordered on the west by DuPont Chemical Corp. and on the east by Mobil Oil Corporation. Clonmell Creek runs through the site and discharges into the Delaware River in the northwest corner of the property. Hercules operates an organic peroxides manufacturing facility and tank farm area on the southern portion of the site. Approximately 2,000 feet north of the manufacturing plant is a solid waste disposal area utilized by Hercules from 1952 to 1974 and by DuPont (the previous owner) prior to 1952.

Environmental Impact
A ground water investigation study by the United States Geological Survey (USGS) of the Potomac-Raritan-Magothy Aquifer System in 1980-1981 documented a high level of benzene contamination in the deep aquifer at the site. Subsequent investigations conducted by a consultant hired by Hercules has shown that there are three separate but hydraulically connected aquifers under the site, each of which displays elevated levels of volatile organic contamination. Although unconfirmed to date, hazardous waste contamination is suspected at the waste disposal area.

The primary public health concern associated with the Hercules site is contamination of existing or potential public ground water supplies. Surface water is also threatened.

Status
As a result of the ground water contamination discovered at the site by the USGS hydrogeologic efforts, Hercules was issued a Directive Letter in November 1982 by the New Jersey Department of Environmental Protection (NJDEP) to install and sample four monitoring wells and perform sample analyses on tar-like material at the waste disposal area. The NJDEP is negotiating an Administrative Consent Order requiring the company to delineate the nature and extent of the contamination both on and off site as a result of industrial activity at the site, and to develop and implement approved remedial actions at the site. Through the course of the negotiations of the Order, Hercules has proceeded to install and sample 32 on-site and 23 off-site wells. In June 1983, the company began operating a ground water abatement system to recover and treat contaminated ground water at their waste water treatment plant.

Of 97 New Jersey sites on the National Priorities List, the Hercules Incorporated site is ranked 61st.
Site Name

High Point Sanitary Landfill
Franklin Township
Warren County

Site Description

High Point Sanitary Landfill is located on 24 acres in a rural area of Franklin Township. The site is situated at a mid-point on the northern slope of Pohatcong Mountain, approximately one mile southeast of Broadway, New Jersey. The landfill was operated for over 25 years although, from the early 1970s until November 1983 it was utilized as a sanitary landfill. This facility was the only State regulated landfill serving both Warren and Hunterdon Counties. The landfill has a history of continuous cover violations; a portion of the upland recharge area was stripped and presumably used as cover material. Unclassified wastes, foundry sand, industrial sludge and waste water treatment plant sludge were disposed of on site. It is alleged that various chemical liquid wastes were accepted by the facility during the 1970s. Presently the landfill is without effective cover on a relatively level surface, allowing precipitation to enter the fill materials. The landfill is also unlined and without a leachate collection system.

Environmental Impact

Past and recent landfilling methods have resulted in contamination of ground water resources adjacent to the landfill area as well as contamination and subsequent loss of potable water supplies at a private residence. High levels of volatile organic compounds were found in monitoring wells. Due to the local geologic formation and hydrogeological conditions, leachate flows originate within the landfill and move downgradient into the fractured bedrock and springs of Pohatcong Creek Valley. Because of the increase in annual precipitation and the volume of uncapped landfill, a critical concern is the great quantity of leachate which is being discharged into the ground water. The migration of contaminated ground water is a concern since Cross Creek originates at the site and runs into Pohatcong Creek which is used for fishing and recreation. There is also the potential threat of soil contamination from off-site contaminant migration.

Status

In December 1982 a testing schedule for private wells was implemented by the New Jersey Department of Environmental Protection (NJDEP) and the Warren County Health Department. On December 15, 1982 NJDEP's Division of Waste Management entered into an Administrative Consent Order with High Point Sanitation Company in which the Company agreed to install additional monitoring wells, sample all monitoring wells at the facility on a quarterly basis, submit a comprehensive engineering design for the facility, construct a tracking pad and pay a $2,500 fine. In February 1983 the Warren County Health Department advised the affected residents not to use well water for potable purposes. The Warren County Law Enforcement officials secured the site on September 15, 1983 prior to its closure on November 14, 1983. A civil action in July 1984 named NJDEP the receiver to conduct proper landfill closure using funds from the escrow accounts and assets of the former landfill owner. NJDEP also has the responsibility to conduct a hazardous waste investigation and feasibility study under the New Jersey Spill Fund.

In January 1984 NJDEP proposed the High Point Sanitary Landfill for inclusion on the National Priorities List (NPL), however, the United States Environmental Protection Agency has not accepted this site for the NPL. Site cleanup will be addressed with State funds if necessary.
Site Name
Hopkins Farm
Plumsted Township
Ocean County

Site Description
Hopkins Farm is located on Route 539, one quarter-mile north of Route 528 in Plumsted Township. The site encompasses 57 acres, which include a six-acre wooded flood plain. Agricultural areas surround the site. During the late 1950s and early 1960s, the site was indiscriminantly used to dump and bury an unknown amount of drummed and bulk materials containing lindane, benzene, halogenated solvents and heavy metals. Deteriorating remains of 5-gallon pails, various sized amber glass bottles, and solid wastes are visible on site. Two ground areas are covered by a sludge substance. The site is one of seven "Plumsted" sites in the Ocean and Monmouth County area.

Environmental Impact
Analysis of ground water from monitoring wells has indicated that the underlying aquifer is contaminated with benzene, ethyl benzene, toluene, methylene chloride, antimonium, chromium and arsenic. This contamination poses a threat to the potable water supply in the area. Furthermore, there is a stream on the property which runs into Crosswicks Creek, presenting the potential contaminant migration to recipient water bodies.

Presently, Hopkins Farm is easily accessible. Lack of security is a problem as there is no determent to site access. The U.S. Department of Interior Fish and Wildlife Wetland is approximately 1800 feet from the site.

Status
Numerous site inspections have been conducted by the New Jersey Department of Environmental Protection (NJDEP), Division of Waste Management and Division of Water Resources. NJDEP has installed monitoring wells and recommended air sampling.

Enforcement action alternatives are presently being evaluated. Investigations to determine the responsible parties and potential funding for a Remedial Investigation/Feasibility Study have been initiated by NJDEP.

Of the 97 New Jersey sites on the National Priorities List, Hopkins Farm is ranked 80th.
Site Name

Horseshoe Road Dump
Horseshoe Road
Sayreville Borough
Middlesex County

Site Description

This site of buried and exposed drums is located at the end of Horseshoe Road. It is bordered on the east by the Middlesex County Sewer Line, on the west by marshland, and 600 feet to the southeast by the Sayreville Compounding, Inc. The Raritan River lies approximately 300 feet to the north.

The actual dumping area comprises about 50,000 square feet with a ten foot incline at edges. There are 3 buildings on site, one of which has been gutted by fire. Two bulk storage tanks of 5,000 and 10,000 gallons are also on site. Many burned five-gallon paint cans and four separate areas containing approximately 1200 drums have been located both in and outside of buildings.

Environmental Impact

The observed spillage from drums and the five foot proximity to ground water creates a real possibility of both ground water and surface water contamination. Leachate has been observed coming from the dump and entering into a small stream which crosses the site and runs into the Raritan River. Sample analysis of soil and drummed waste has indicated low levels of hazardous substances including pesticides, polychlorinated biphenyls (PCBs) and heavy metals.

Status

Inspections by the New Jersey Department of Environmental Protection (NJDEP) culminated in a cleanup of approximately 1000 drums during the Spring of 1980. As a result, a lawsuit was filed with the State Attorney General's office to recoup monies spent from the Spill Compensation Fund. The United States Environmental Protection Agency (USEPA) has expressed interest in the site and scheduled a visit by their Field Investigation Team (FIT) during June 1982. The NJDEP is currently awaiting analysis of additional drum and soil samples taken during March 1985. The NJDEP is pursuing leads for responsible party cleanup. The Horseshoe Dump site is included in NJDEP's Management Plan for hazardous waste site cleanups and it will be addressed with additional State funds if necessary.

3/85
Site Name
Hudson County Chromium Contamination
Jersey City, Kearny, Secaucus
Hudson County

Site Description

At present there are 50 sites in Hudson County known to be contaminated with elevated levels of chromium. An additional seven sites are suspected to be contaminated with chromium and others are currently being investigated. The contamination has apparently originated from the use of chromate waste from local chromate-processing industries as fill and diking material. The three currently inactive manufacturing sites are: 1) Mutual Chemical Company (previously owned by the Allied Corporation) located on Route 440 in Jersey City and currently owned by Daylin, Inc., a subsidiary of W.R. Grace Company, (In excess of 969,500 tons of chromium waste were disposed of in the tidal flats of the Hackensack River across Route 440 from the plant.); 2) Natural Products, Inc., a subsidiary of Pittsburgh Plate and Glass, which operated a 12-acre site at the intersection of Garfield Avenue and Carteret Avenue in Jersey City, (The site is currently owned by the Lawrence Construction Company. The construction/hauling firm of Ambrosio and Sons, Inc., has been identified as having used the chromium waste as fill material at many demolition sites in Jersey City.); 3) a facility of the Diamond Shamrock Company covering a 26-acre site located on the Belleville Turnpike in Kearny, (Chromium waste was disposed of at this site and on an adjacent property, an operating facility of Standard Chlorine, Inc.).

It is estimated that these chromium operations have resulted in the generation of approximately two million tons of an alkaline waste residue containing from 2% to 5% chromium. This may represent 1,850,000 cubic yards of this material which has subsequently been used as fill in what are now commercial, industrial and residential areas of Hudson County.

Environmental Impact

The chromium compounds in the waste are slowly soluble in the presence of water and eventually release toxic hexavalent chromium salts. This process can continue over long periods of time. Such leaching has resulted in soil, groundwater and surface water contamination.

Status

The New Jersey Department of Environmental Protection (NJDEP) has issued Directive Letters to the site owners requiring the performance of remedial investigations as the first step toward full remedial action. Directive Letters have also been issued to the Lawrence Construction Company and Ambrosio and Sons, Inc. prohibiting further use of the waste as fill material. Negotiations with the responsible parties are continuing regarding remedial measures for all of the Hudson County chromium sites.

On August 12, 1985 NJDEP awarded a contract to the firm of Environmental Science and Engineering to perform a Remedial Investigation/Feasibility Study of the chromium sites in Hudson County. Work has been initiated on sampling plans and field work is anticipated to begin before the end of 1985. The study is expected to take approximately 18 months.

10/85
Site Name
Ideal Cooperage
3 New York Avenue
Jersey City
Hudson County

Site Description
This is a three-acre tract of land formerly used as an industrial drum reconditioning facility. The site is located at the base of a 90-foot cliff which separates a residential neighborhood in Jersey City from a heavily industrialized residential area to the east. New York Avenue connects the two areas and bisects the site. The southern section is the area of most concern since it is in this portion that storage and reconditioning of barrels took place. About eight years ago, the main reconditioning building was gutted by fire and subsequent fires have caused considerable damage to other smaller buildings and equipment.

Adjacent to the site on the northern boundary is an Erie-Lackawanna Railroad passenger terminal. Adjacent to the property on the east are Conrail freight and repair yards which border the Hudson River.

A 1980 United States Environmental Protection Agency report documents the presence of approximately 3,000 55-gallon drums.

Environmental Impact
Ample evidence of spillage of residual chemicals from the drums has been documented and soil samples indicate the presence of a wide variety of contaminants. Groundwater contamination is possible and runoff of excess wash water from the drum cleaning operation could end up in the Hudson River via the storm sewers on New York Avenue.

Status
The site is now essentially a vacant lot which has been leveled and fenced to restrict access. In the fall of 1983, the lower portion of the site was purchased and developed by a commercial freight company. The new owner has conducted an unsupervised cleanup of the lower property and has removed 90% of the drums.

4/85
Imperial Oil Company, Inc./Champion Chemical Company
Marlboro Township
Monmouth County

Site Description

Imperial Oil Company, Inc. is an active oil blending facility. Several different companies have operated out of the facility in the past. It is believed that this oil reprocessor discharged waste products to a nearby stream. There are two additional suspected contaminated areas adjacent to the Imperial Oil Company site.

Environmental Impact

A waste site at the facility is contaminated with polychlorinated biphenyls (PCBs), arsenic, lead, petroleum hydrocarbon and other synthetic chemicals. The soil surrounding both the waste pile and the oil/water separator is contaminated. Sediments in a nearby stream and ground water beneath the site are contaminated. Contaminants in soil, ground water and surface water have migrated off site and caused further pollution of the surrounding area. Floating PCB-contaminated oil has been detected in the ground water.

Status

The New Jersey Department of Environmental Protection (NJDEP) is conducting an inspection and monitoring program of the site and surrounding areas. Imperial Oil Company has made improvements in the facility design which should decrease the likelihood of accidental discharges. In June 1981, the NJDEP notified Imperial Oil by Directive Letter to cease all discharges into waters of the State, and to cease landfilling. In July 1981, the NJDEP issued a Notice of Prosecution and Order to Imperial Oil for landfilling without obtaining authorization and issued a $20,000 penalty. Also in June 1981, the United States Environmental Protection Agency (USEPA) issued a Notice of Violation to Imperial Oil for failure to submit information regarding its Spill Prevention Containment and Countermeasures Plan (SPCC), and in June 1982, a penalty of $2,500 was collected in a Settlement Agreement on that Notice. In November 1981, the NJDEP, Imperial, and the Champion Chemical Company entered into an Administrative Consent Order mandating various facility improvement programs in addition to a comprehensive site cleanup program. In accordance with this Order, the company submitted a site evaluation report which was reviewed by NJDEP. In addition, NJDEP has investigated the two off site dump areas to identify potentially liable parties. A Draft Remedial Action Master Plan (RAMP) was completed by the USEPA during the summer of 1983 and reviewed by NJDEP in March, 1984. Several meetings were held between Imperial and NJDEP in March 1984 but since that time, negotiations with the company have not been successful. NJDEP and USEPA have entered into a Cooperative Agreement to commit approximately $843,000 for a Remedial Investigation/Feasibility Study (RI/FS) at the site. The RI/FS is scheduled to begin in January of 1985 and will include an investigation of off-site areas of contamination which are thought to be related to operations at Imperial Oil. Imperial Oil has installed a storm water treatment plant and received a New Jersey Pollutant Discharge Elimination System Permit for this discharge.

Of 97 New Jersey sites on the National Priorities List, the Imperial Oil Company, Inc./Champion Chemical Company site is ranked 83rd.
Site Name

Incelcoustics Corporation
Jernee Mill Road
Sayreville Boro
Middlesex County

Site Description

This is an active site consisting of a 21.6 acre tract of land zoned for industrial use. It is occupied by both office and manufacturing buildings. The company involved is the Celotex Corporation, Incelcoustic Division. The site is located between the Raritan and South Rivers and is partially bordered by the Sayreville Municipal Landfill. A partially buried tank and drums have been observed by New Jersey Department of Environmental Protection (NJDEP) inspectors. One pit to collect recycled process and wash water has been confirmed to be on site.

Environmental Impact

The nature and extent of contamination has not yet been determined. However, the potential exists for contaminant migration to the soil and ground water. Ground water has been estimated to be at five feet below the surface with a southwesterly flow. Past plant operating practices have resulted in air pollution violation actions.

Status

Enforcement status reports from NJDEP's Division of Environmental Quality have stated that the Celotex Corporation, Incelcoustic Division was cited for violations relating to particulate emissions and permitting. As a result, the company has entered into an Administrative Consent Order (ACO) with NJDEP to control emissions from the fiberglass forming operations.

An anonymous call initiated a site inspection by NJDEP in September 1980 that revealed recent digging, a partially buried tank with unknown liquids, two partially exposed drums and pipes protruding from the ground. The New Jersey Attorney General's Office of Criminal Justice was notified. A subsequent inspection by NJDEP with company officials in August 1981 concluded that operations appeared to be relatively clean with no significant wastes generated or problems observed. At that time, approximately 75 drums were on site awaiting content analysis and removal.

The Field Investigation Team (FIT) of the United States Environmental Protection Agency (USEPA) has expressed interest in the site and made a preliminary visit in 1982. The Incelcoustics Corporation site is included in NJDEP's Management Plan for hazardous waste site cleanups and it will be addressed with state funds if necessary.

2/85
Site Name

Jackson Township Landfill
Lakehurst Avenue
Jackson Township
Ocean County

Site Description

This site is an inactive landfill which was operated by Jackson Township from 1972 until 1980 when it was closed by court order. During its period of operation, it was licensed to receive liquid and solid waste, including sewage sludge and septage wastes. The landfill, located in the Legler section of the township, covers a 20-acre tract which had previously been mined for the mineral ilmenite.

Environmental Impact

In 1978, approximately 100 private wells in the vicinity of the landfill were found to contain volatile organic contaminants including benzene, chloroform, methylene chloride and 1,1,1, trichloroethylene. A complex citizen lawsuit resulted and a municipal water system was extended to the Legler district in 1980. Over 30 monitoring wells have been installed at the site since that time. Sampling of these wells in 1981-82 found no significant contaminants beneath the landfill thus raising the possibility that the plume of contamination may have moved away from the site.

Status

As a result of the 1978 sampling program which documented the presence of volatile organic compounds in both on-site monitoring wells and off-site private wells, the New Jersey Department of Environmental Protection (NJDEP), in conjunction with the Ocean County Department of Health, advised residents not to use their private wells. An Administrative Order was issued to halt liquid waste disposal at the landfill.

In February, 1980 the Superior Court of New Jersey ordered the township to close the landfill and develop a comprehensive cleanup plan to remedy the ground water contamination emanating from this site. In September, 1982 Jackson Township submitted a closure plan and a New Jersey Pollutant Discharge Elimination System (NJPDES) permit application to the NJDEP. The NJDEP Divisions of Water Resources and Waste Management are currently reviewing and revising the draft NJDES permit which is an integral part of the site closure plan. Public hearings were held on October 10, 1984 with a 30-day comment period ensuing.

Of 97 New Jersey sites on the National Priorities List, the Jackson Township Landfill is ranked 63rd.
JACKSON TOWNSHIP LANDFILL
JACKSON TWP.
OCEAN CO.
Site Name

Jamie Fine Chemicals, Inc.
100 West Main Street
Bound Brook Borough
Somerset County

Site Description

This is an active chemical manufacturing facility located in Brook Industrial Park adjacent to another hazardous waste site, the Blue Spruce International, Inc. property. The company manufactures specialty chemicals and all waste water is discharged into the sanitary sewer system. It was recently discovered that the site was once used for a municipal landfill.

Environmental Impact

There is concern for both soil and ground water contamination. Solvent spillage and discharge problems at the site have been documented since 1980 when an Administrative Consent Order was issued by the New Jersey Department of Environmental Protection (NJDEP) to halt illegal discharge to a drainage ditch and the Raritan River. Analysis of water samples collected from monitoring wells installed at the Bound Brook Industrial Park in 1982 indicate that the shallow ground water under the site is seriously contaminated with volatile organic chemicals, including chloroform, toluene, and benzene as well as lesser amounts of other organic solvents.

The underlying soils at the site are composed of 12-20 feet of relatively permeable stratified sand, silt and gravel which will readily transmit groundwater and contaminants. Groundwater is present within three to five feet of the surface, so surface spills will easily migrate to the water table. Also of concern is the fact that contamination in the upper aquifer potentially could migrate to the underlying Brunswick Formation and/or to the nearby Raritan River. The Brunswick aquifer is used locally as a potable and industrial water supply.

Additionally, it appears that the solvents from the Jamie Fine Chemicals, Inc. operation may be impacting on contaminants from the adjacent Blue Spruce International, Inc. site.

Status

In October, 1984 this site was included on the interim National Priorities List as part of the Superfund cleanup program. Of 97 New Jersey sites on the National Priorities List, Jamie Fine Chemicals, Inc. is ranked 93rd.

10/84
Site Name

Jones Industrial Service Landfill (JIS)
535 Cranbury Road
South Brunswick Township
Middlesex County

Site Description

This is a 10-acre inactive landfill formerly operated by Jones Industrial Service. It is situated in a predominantly rural and agricultural area and was originally a borrow pit excavated during construction of the New Jersey Turnpike. During the 1960s and 1970s an unknown quantity of bulk liquid chemicals, industrial solvents and waste were buried at the site.

Environmental Impact

Volatile organic chemicals have been detected in the Old Bridge Formation Aquifer, the principal source of potable water in the area. The plume has migrated off site causing ground water contamination in both South Brunswick and Monroe Townships. Public water lines have been extended to affected residences in both townships.

Status

The landfill is under court order not to accept any additional waste and to implement a comprehensive ground water contamination abatement program. Subsequent court directives have mandated immediate implementation of numerous additional N.J. Department of Environmental Protection (NJDEP) cleanup requirements. During the summer of 1983, JIS capped the fill areas and conducted a 90-day pilot study program for a ground water treatment program. In March of 1984, JIS applied for an N.J. Pollutant Discharge Elimination System (NPDES) permit to continue ground water treatment on site and in the immediate vicinity. NJDEP approval of this permit is pending.
Site Name

Jones Liquor Store
Upper Freehold Township
Monmouth County

Site Description

The Jones Liquor Store site is on Route 537 about 1.5 miles east of the intersection of Routes 537 and 539 in Upper Freehold Township. Approximately twenty 55-gallon drums were disposed of on the property of the liquor store. The drums are deteriorating and presently void of contents.

Environmental Impact

Soil contamination is suspected. In March 1982, a composite sample of stained soil and sludge from a ruptured drum was analyzed for full priority pollutants. Inorganic contaminants were detected at that time.

Status

The Jones Liquor Store site has been placed on the New Jersey Department of Environmental Protection's Management Plan for hazardous waste site cleanups.
Site Name
Kearny Drum Dump #1
Kearny
Hudson County

Site Description
Kearny Drum Dump #1 is a one-half acre site located in a swamp area of the Hackensack Meadowlands, off the Belleville Turnpike. It is within the floodway of the Hackensack River. During the course of site inspections, the New Jersey Department of Environmental Protection (NJDEP) found approximately fifteen 55-gallon drums which were indiscriminately dumped and covered with debris. Volatile organics and heavy metals are leaking from the drums directly into the swamp. The drums are among combustible debris which was also illegally disposed of at this site.

Environmental Impact
The soil is being contaminated from the drum contents which have leaked onto the ground. Consequently, this could also damage the plant life in the area. Because the dump is within the floodway of the Hackensack River, there is a possibility of contaminant migration to the ground water and to the Hackensack River which is used for fishing and trapping. The Bald Eagle and Peregrine Falcon habitat within one mile of the site and they are extremely vulnerable to environmental contaminants. Presently the site is unsecured and open to trespassers.

Status
In 1984, NJDEP proposed Kearny Drum Dump #1 to the United States Environmental Protection Agency (USEPA) for inclusion on the National Priorities List (NPL), however, it was not accepted for the NPL. The site is included in NJDEP's Management Plan for hazardous waste site cleanups and it will be addressed with State funds if necessary.
Site Name

Kearny Drum Dump #2
Kearny
Hudson County

Site Description

Kearny Drum Dump #2 is a one acre site located approximately 350 yards south of the Conrail overpass, on the Belleville Turnpike. The dump is situated on fill overlying the Hackensack Meadowlands and is within the floodway of the Hackensack River. It is approximately 3,000 feet from the Passaic River and is partially located in Franks Creek. There are approximately 90 leaking drums containing various liquids and solids including methylene chloride, toluene, antimony, chromium, lead and zinc. The City of Kearny is the present owner of the property.

Environmental Impact

Analysis of soil samples indicates the presence of toluene, lead, chromium and methylene chloride. There is potential for ground water and surface water contamination, especially because of the site's location within Franks Creeks. The area is not secured thereby creating the possibility of direct contact with the contaminants.

Status

In 1984 the New Jersey Department of Environmental Protection (NJDEP) proposed Kearny Drum Dump #2 to the United States Environmental Protection Agency for inclusion on the National Priorities List (NPL), however, it was not accepted for the NPL. The site is included in NJDEP's Management Plan for hazardous waste site cleanups and it will be addressed with State funds if necessary.

11/84
Site Name

Kearny Drum Dump #4
Kearny
Hudson County

Site Description

Kearny Drum Dump #4 is located east of Kearny in an open field, off the Belleville Turnpike. This site is completely within the Lower Hackensack River Marsh which is the floodway of the Hackensack River. Approximately 50 drums were discovered during the course of an inspection by the New Jersey Department of Environmental Protection (NJDEP). Some of the drums are deteriorating and leaking their contents onto the ground surface.

Environmental Impact

Analysis of the drum contents indicates the presence of benzene, ethylbenzene, methylene chloride, toluene, naphthalene and beryllium. The high permeability of the soil increases the potential for ground water contamination. There is a ditch on site which leads directly to the Hackensack River.

This site is part of a documented wintering area and migration feeding stop over for Bald Eagles and Peregrine Falcons. Both endangered species are highly susceptible to environmental contaminants.

Status

Presently Kearny Drum Dump #4 is included in NJDEP's Management Plan for hazardous waste site cleanups.
Site Name

Kearny Drum Dump #5
Kearny
Hudson County

Site Description

Kearny Drum Dump #5 is located off Harrison Avenue, west of the Conrail overpass. In April 1984, the New Jersey Department of Environmental Protection (NJDEP) discovered approximately 100 55-gallon drums that were indiscriminately dumped in a ravine. The drums are deteriorating and the soil around them is discolored. This area is subject to flooding and some of the drums are submerged in water. Analysis of the drum contents indicates the presence of ethylbenzene, toluene, tetrachloroethane, chromium and lead.

Environmental Impact

Volatile organics were detected during air monitoring. There is dead vegetation in the area of the drums. The Lower Hackensack River marsh, less than one mile from the site, is a wintering area and migration feeding post for the Bald Eagle and the Peregrine Falcon. Both of these endangered species are extremely vulnerable to environmental contaminants. The site is presently not fenced.

Status

In 1984, NJDEP proposed Kearny Drum Dump #5 to the USEPA for inclusion on the National Priorities List (NPL), however, it was not accepted for the NPL. Kearny Drum Dump #5 is included in NJDEP's Management Plan for hazardous waste site cleanups and it will be addressed with State funds if necessary.

10/84
Site Name
Kin-Bac Landfill
383 Meadow Road
Edison Township
Middlesex County

Site Description
This is an inactive 65-acre landfill with an elevation of 90 feet. During the years 1947 to 1976 the landfill accepted industrial process waste, chemical waste, municipal liquid and solid wastes in quantities suspected of ranging up to 70,000,000 gallons. Improper disposal practices came to light in the early and mid-1970s as a result of spills and a fire at the site. Among the hazardous substances identified on site are polychlorinated biphenyls (PCBs).

Environmental Impact
The primary environmental concern at present is the collection and treatment of PCB-contaminated leachate emanating from the landfill and presently discharging to Edmond's Creek, a tributary of the Raritan River. In addition, PCB-contaminated oil is accumulating in a natural depression adjacent to the landfill (known as Pool C), and then discharging to Edmond's Creek. Groundwater contaminants have also been detected during air monitoring.

Status
In July, 1982 the United States Environmental Protection Agency (USEPA) and the New Jersey Department of Environmental Protection (NJDEP) signed a Cooperative Agreement to commit $2,780,000 for the construction of a temporary leachate collection/treatment system as an interim remedial measure. The responsible parties have, however, assumed responsibility for site remediation after the Superior Court of New Jersey upheld a USEPA Administrative Order mandating the mitigation of the release of contaminants from Pool C and the performance of a Remedial Investigation/Feasibility Study. The federal and state money has been held in a trust account for site remediation should the responsible parties fail to meet their obligation.

On December 12, 1983 SCA, one of the former operators of the site, began to ship the waste oils, which amounted to 250 solid pack drums and 1,700 drums of mixed oil aqueous solution, to a PCB incinerator in Ohio. This program was completed in April, 1984. The Remedial Investigation/Feasibility Study was completed in June, 1984.

Scientific, Inc., a subsidiary of Kin-Bac has continued the leachate collection operation from Pool C and in July, 1984 received an interim New Jersey Pollutant Discharge Elimination System (NJPDES) permit for the operation of an on-site leachate collection and pre-treatment system. The wastewater is transported to the Middlesex Treatment Plant for further treatment and discharge.

Of 97 New Jersey sites on the National Priorities List, Kin-Bac Landfill is ranked 24th.
Site Name

King of Prussia Landfill
Piney Hollow Road
Winslow Township
Camden County

Site Description

This is a seven-acre site in the Pine Barrens which was operated as a liquid chemical waste recycling and treatment facility from approximately 1970 until its abandonment by the operators in 1975. Illicit dumping of chemicals is believed to have occurred for an unknown period of time after 1975. There are six unlined lagoons located on site in which various chemical wastes were neutralized. Additionally, there are three areas where chemical powders were buried and one area where an unknown quantity of drums has been buried.

Environmental Impact

Contamination of both ground water and surface water has been documented. Vinyl chloride, arsenic, heavy metals, phthalate esters, chloroform, and trichloroethylene have been detected in ground water nearby. Drainage ditch runoff contained chloroform, arsenic, heavy metals, phthalate esters, trichloroethylene, and phenol. An area of dead trees to the southeast of the property may also be an indication of ground water contamination.

Status

Additional sampling and ground water investigations are necessary in order to define the extent of contamination and the direction in which the plume is moving. A Consent Agreement between the United States Environmental Protection Agency and the responsible parties was signed in June, 1984 for the performance of this work.

Of 97 New Jersey sites on the National Priorities List, the King of Prussia Landfill is ranked 39th.
Site Name
Koppers Company, Inc.
Seaboard Plant Site
Fishhouse Road
Kearny
Hudson County

Site Description
This 300-acre tract is the site of an inactive coke producing and tar distillation facility which began operations in the early 1900s. The coke operation stopped in 1971; the tar processing continued until 1979 when the plant was closed. Approximately one million gallons of coal tar residues previously remaining on site in above-ground gas holders have been removed. Cinders produced by the plant operation were used as fill material. The depth of the fill is estimated to be 20 feet. Beneath the fill is a layer of silty clay.

Environmental Impact
There is concern for both surface and ground water contamination as well as for soil contamination. The site is adjacent to the Hackensack River and oil has been noted seeping into the river. Soil samples indicate the presence of endrin, phenol, cyanide, benzene, toluene and naphthalene.

Status
Negotiations are on-going between the New Jersey Department of Environmental Protection (NJDEP) and the company to develop a comprehensive program to evaluate soil, ground water and surface water contamination at the site. A preliminary site investigation has been proposed by Koppers Company and is anticipated to begin in the summer of 1985. An Administrative Consent Order is being negotiated to finalize the agreement between Koppers Company and NJDEP with regard to the investigations.
Site Name

Krysowaty Farm
Three Bridges Road & Hockenberry Road
Hillsborough Township
Somerset County

Site Description

The Krysowaty Farm is a 42-acre site in Hillsborough Township, near the Village of Three Bridges. The site is located just south of the South Branch Raritan River in the extreme western section of Somerset County. The disposal area, which was used intermittently from 1965 until 1970, is approximately ½-acre and appears to be a partially filled, stream ravine which drains into the South Branch Raritan River. Primary land use of the adjacent property is agricultural and residential. Scattered woodland, an oval-shaped marsh/meadow area, corn fields, and pastures are located immediately downslope of the site. The nearest residences are about 900 feet from the site; more than 50 residences are within 2,500 feet of the site and depend on private wells for potable water.

Approximately 500 drums of paint and dye wastes, and unknown materials were allegedly dumped, crushed, and buried at Krysowaty Farm. Wastes including demolition debris, tires, automobiles, bulk wastes, solvents, sludge, and other materials were disposed of on site. The presence of hazardous wastes was confirmed when the New Jersey Department of Environmental Protection (NJDEP) conducted a test pit excavation and sampling of approximately 25 crushed drums.

Environmental Impact

Although significant contamination was not observed during random sampling of monitoring wells, ground water sampling near the base of the landfill indicated significant levels of contamination. Routine sampling of private potable wells has not revealed contamination. Currently twelve residences north of the site are being supplied with bottled water because of potential contamination. The site is underlain by the Brunswick Formation, a series of red shales of the Triassic age, which makes it difficult to determine the nature and extent of contaminant migration. Potable wells of surrounding residences may be threatened by off-site migration of contaminants.

Status

In August 1982 a monitoring program for the Krysowaty Farm site was developed by NJDEP, the United States Environmental Protection Agency (USEPA) and the Township of Hillsborough. The three-phase monitoring program includes: quarterly samples of seven predetermined residential wells for organic constituents; sampling of climactic conditions (greater than one inch of rainfall per 24-hour period); and emergency sampling contingent upon individual incidents or complaints by residents.
A Draft Remedial Investigation/Feasibility Study was completed in December 1983. USEPA and NJDEP each prepared a Draft Record of Decision (ROD). The selected remedy, detailed in the NJDEP's ROD, includes the following activities: excavation and removal of the hazardous waste disposal area; transport and disposal of wastes to an approved hazardous waste facility; provision of a permanent alternate water supply for potentially affected residents and the sealing of potentially affected potable wells; semi-annual monitoring of on-site wells and off-site residential wells for a five-year period; and monitoring of the marsh sediment to evaluate the nature and extent of contamination in the marsh area in order to determine future actions. Presently, NJDEP is preparing a Cooperative Agreement application to be submitted to USEPA for the construction of the water lines and the sealing of the wells.

Of 97 New Jersey sites on the National Priorities List, Krysowaty Farm is ranked 15th.

11/84
Site Name

L. E. Carpenter (also known as Dayco Corporation)
Wharton Borough
Morris County

Site Description

L. E. Carpenter operates a wall covering manufacturing facility at 170 North Main Street in Wharton Borough. The facility is within the flood plain of the Rockaway River. Prior to 1970 solid and liquid wastes were disposed of in a subsurface impoundment within 200 feet of the Rockaway River.

Environmental Impact

Ground water has become contaminated with xylene, ethylbenzene and other solvents. Analyzed sludge was found to contain these solvents, as well as, lead, butylbenzene, chloroform and toluene. Approximately 20,000 gallons of recoverable solvent is floating on the ground water. The potential pollution of the Quaternary Aquifer, underlying the site, is a critical concern as it is the only source of potable water for approximately 28,000 residents of Wharton and Dover. Two of the Wharton Public Wells which draw from this aquifer are located approximately 2,600 feet from the site. The Dover well fields, approximately 1.5 miles downstream of the site, are also supplied by the Quaternary Aquifer. During flood conditions, the Rockaway River submerges the site.

Status

In January 1982 L. E. Carpenter and the New Jersey Department of Environmental Protection (NJDEP) entered into an Administrative Consent Order (ACO) which required the company to remove waste sludge from the impoundment, delineate the pollutant plume, remove floating solvents from the ground water, and decontaminate the ground water. By May 1982 L.E. Carpenter removed over 4,000 cubic yards of sludge from the impoundment, as well as, associated contaminated soil. Using an autoskimmer, L.E. Carpenter has started removing solvents from the ground water. However, in correspondence dated December 1984, NJDEP directed the company to reevaluate the effectiveness of this system of ground water decontamination. Also, the pollutant plume has not been fully characterized to the satisfaction of NJDEP. Presently the L.E. Carpenter site has been submitted by the NJDEP to the United States Environmental Protection Agency for Superfund consideration.
Site Name

Lakeland Regional High School
Wanaque Borough
Passaic County

Site Description

The Lakeland Regional High School site is located on Conklintown Road and west of Chestnut Street. High Mountain Brook lies approximately 100 feet to the east. To the south, a park adjoins the school grounds while a municipal supply well is situated approximately 550 feet from the site to the southeast. Contamination at the site originated at the high school's fuel oil storage tanks and is believed to have escaped through a faulty valve. It is believed that since 1972, the oil product has been migrating below ground toward High Mountain Brook where it has been observed as both a surface sheen and a stain on the bank. Some of the oil may have been intercepted by the Chestnut Street water supply sewer.

Environmental Impact

Both surface water and ground water in the site's vicinity are affected by a body of floating oil product at the site. Although some of the oil has been removed via an oil recovery system, significant amounts remain. Roughly 8,640 people within a three mile radius of the site are served by ground water. Surface water in the area is used for recreation and fishing.

Status

The New Jersey Department of Environmental Protection (NJDEP) installed an oil recovery system at two well locations in June 1980. Operation of the system was discontinued in February 1981 and various parts were removed. In November 1984, a contract was awarded to reactivate the oil recovery system and to remove the remaining oil product.
Site Name
Landfill & Development Company
Mount Holly Township
Burlington County

Site Description
The Landfill & Development Company (L&D) owns a tract of land of about 200 acres in the adjoining townships of Mount Holly, East Hampton and Lumberton. Roughly 150 acres of the L&D property is approved for landfilling. The site is bordered to the west by Pine Street and to the north by Railroad Avenue and Shreve Street. Originally a sand and gravel pit, the site is adjacent to Rancocas Creek and surrounded by residential developments. L&D has operated since 1963 and accepts municipal refuse, industrial and commercial solid waste and treated sewage sludge. Hazardous substances may have been disposed of at the site in the past. Presently the facility is approaching maximum capacity.

Environmental Impact
Water pollution is the major problem at this landfill; methylene chloride and trichloroethylene have been found in surface and ground water samples. Monitoring wells and private wells have become contaminated with volatile organic chemicals. Pervasive odors originating at the site are considered to be detrimental to the surrounding property values and to the health and welfare of area residents. It is alleged that methane gas, generating from the landfill, may have destroyed several trees along Route 38.

Status
The landfill has a long history of violating New Jersey Department of Environmental Protection (NJDEP), Solid Waste Administration Regulations. In September 1977, the State issued an Administrative Order requiring the company to replace the affected private wells, install a liner at the landfill, and pump and treat contaminated ground water. The pumping involved 15 wells downgradient of the landfill. Affected water was then aerated and sprayed over a five-acre wooded area. However, the system is no longer operational. In September 1982, NJDEP issued a registration to Landfill & Development, with the stipulation that, among other things, the landfill must improve its poor ground water situation. The owners of the landfill have initiated an intensive hydrogeological study to investigate the groundwater contamination and to identify the alternative courses of remedial action.

Presently Burlington County has proposed the opening of a 600-acre landfill complex in Mansfield and Florence Townships.

Of the 97 New Jersey sites on the NPL, Landfill and Development Company is ranked 86th.
Site Name

Lang Property
Pemberton Township
Burlington County

Site Description

The Lang Property site is a 40-acre illegal dumping area located off Pasadena-Whitesboro Road, just north of the Lebanon State Forest. The site is within the Pine Barrens in a blueberry and cranberry farming area. In 1975 approximately 1,265 55-gallon drums were reported to have been dumped on the property. The drums were removed by the Langs in 1976, however, substantial soil and ground water contamination exists as a result of illegal disposal activities.

Environmental Impact

The primary concern is the contamination of the Cohansey Aquifer which is a major potable water source for Pemberton Township. About seven private wells are located within one mile of this site. In addition, a back-up well for the Pemberton Township Water Department is located within three miles of the site. Approximately 13,000 people depend on this system for their potable water supply. Soil and surface water samples were taken by the New Jersey Department of Environmental Protection (NJDEP) in December 1981; only the soil samples confirmed the presence of hazardous substances. However, when NJDEP analyzed soil and groundwater samples in June 1983, high levels of volatile organic contaminants were found in the shallow ground water zone. The full extent of subsurface contamination has not yet been determined.

Status

In June 1983, NJDEP posted signs on the Lang Property to warn trespassers of penalties regarding illegal handling and disposal of hazardous wastes. NJDEP reviewed the draft Remedial Action Master Plan (RAMP), prepared by the contractor for the United States Environmental Protection Agency, in January 1984. The RAMP has been revised according to NJDEP's recommendations. The site is a USEPA lead which is scheduled for a Remedial Investigation/Feasibility Study in the first quarter of Federal FY '85.

Of 97 New Jersey sites on the National Priorities List, the Lang Property is ranked 32nd.
Site Name
Leonia Spill
Charles Place and Highland Avenue
Leonia Borough
Bergen County

Site Description
The site is located in a mixed residential and commercial section on the southwest border of the Boroughs of Leonia and Fort Lee. The subject Shell station is located on top of a 40-foot embankment consisting largely of fill materials, primarily large rocks and gravel. (Charles Place and Highland Avenue are located at the foot of the embankment.) The affected area is underlain by the Palisades diabase, a relatively impermeable bedrock. The diabase is overlain by 20-40 feet of miscellaneous sand and silt. Ground water flow is to the west. In the low-lying area near the residences a shallow perched water table is approximately 20-feet below the surface.

Environmental Impact
On March 3, 1979, the New Jersey Department of Environmental Protection (NJDEP) determined that diesel fuel was leaking from an underground tank at the Valley View Shell Service Station on Route 46 in the Borough of Fort Lee. One resident, whose property is located at the base of the embankment, was affected by the incident as the petroleum collected in his yard and seeped into his basement. The Shell Oil Company assumed responsibility for the spill and pressure tested and relined some of the tanks. The company also installed a temporary petroleum recovery system.

In April 1980, NJDEP responded again to diesel fuel seeping from the embankment at Charles Place into the yards and basements of two other residents. As a consequence, the Shell Oil Company installed a number of observation wells between their station and the spill site. Since they did not detect contamination in any of these wells, Shell would not acknowledge any further responsibility for the presence of the petroleum. However, Cadmus Corporation (located across the road from the Valley View Shell Station) documented a 15,000 gallon kerosene leak from underground heating pipes that were, in the past, used by a mobile home park that used to be on their property.

Status
After the second incident, Shell transferred ownership of the underground storage tanks to the service station owner. Shell has consistently taken the position that since no product was detected in the observation wells, and since they no longer own the underground tanks, they have no further liability.

In June 1980, the NJDEP contracted New England Pollution Control Inc. (NEPCO) under the Spill Fund Program to mitigate these problems. Additional monitoring wells were installed along with a 100-foot recovery interceptor trench. The area was then covered with wood chips which served as absorbants. By March 1982, these wood chips had become saturated and the petroleum began migrating again into the yards and basements of the adjacent residences. Additional remedial measures, initiated by NEPCO in May 1982, included the installation of two interceptor trenches to collect the petroleum product migrating through the ground to prevent it from reaching the homes on Charles
Place and Highland Avenue. These trenches were dug to bedrock (3-4 feet), lined with plastic, backfilled with gravel and connected with an 8-inch PVC perforated pipe. Four recovery wells were installed, one in the upper trench and three in the lower trench. A low volume submersible pump was installed in each well. The trenches, wells and pumps are connected to a 4,000 gallon separator and a 1,000 gallon polishing unit. The pumps are controlled by liquid level sensor probes which activate the pumps based on water levels in the wells.

In September 1983, hydrostatic tests performed on storage tanks at the Valley View Shell Station indicated that diesel fuel was being released. Also in September 1983, Directive Letters were issued to both the station owner and Cadmus Corporation to implement remedial measures. Subsequently, in January 1984, Cadmus Corporation issued a report which addresses some limited remedial investigations. To date the Valley View Shell Station has filed for bankruptcy and has not complied with the Directive Letter.

On February 15, 1985 revised Directive Letters requiring the operation and maintenance of the existing recovery system, as well as a remedial investigation and feasibility study were issued to the potentially responsible parties: Valley View Shell, and Cadmus Corporation. Another letter was sent to Shell Oil requesting information pertaining to the history of Shell's involvement and relationship with the owner. To date, only Cadmus has responded. DEP is currently evaluating their response, and is determining what additional actions will be taken with the other parties. Presently, the Leonia Spill is included in NJDEP's Management Plan for hazardous waste site cleanups.

2/85
Site Name
Lipari Landfill
Mantua Township
Gloucester County

Site Description
Lipari Landfill is a private inactive landfill located on Route 322. This 16-acre site is an old sand and gravel pit that was converted into a solid waste disposal facility. The site is surrounded by fruit orchards. Between 1958 and 1981 domestic and industrial wastes including methanol, benzene, toluene, xylene, isopropanol, butanol, bis (2-chloroethyl) ether, beryllium and mercury, were disposed of at the landfill. It is reported that several thousand drums and several hundred thousand gallons of hazardous chemical wastes are presently on site.

Environmental Impact
A significant amount of leachate is entering an adjacent creek which empties into Alcyon Lake. The Kirkwood Aquifer which underlies the site may become contaminated. Potable ground water wells serve a population of approximately 20,000 area residents. There is a severe air pollution problem in the vicinity of the site due to the volatilization of chemicals.

Status
A contract between the United States Environmental Protection Agency (USEPA) and the New Jersey Department of Environmental Protection (NJDEP) was signed in September 1982 to commit $3.06 million for the design and construction of a slurry wall and landfill cap, and a Feasibility Study for evaluating alternatives for collection and treatment of the encapsulated contaminants. USEPA has installed a fence around the site. Construction of the slurry wall to contain contaminated ground water was completed in December 1983. The landfill cap is essentially finished, however, there are areas of the cap which require repair. After the cap is repaired the construction phase will be completed. Due to the elevated ground water table within the slurry wall the contractor is presently lowering the ground water table, i.e. pumping the ground water through a mobile carbon unit and discharging it to the Gloucester County Utilities Commission public sewage facility. This project is scheduled for completion by December 1984. The work plan for the Feasibility Study is forthcoming from USEPA, which has the lead at the Lipari site.

Of 97 New Jersey sites on the National Priorities List, Lipari Landfill is ranked first.
Site Name
Lodi Municipal Wells
Lodi Borough
Bergen County

Site Description

The Lodi Municipal Wells site consists of a series of public wells situated sporadically throughout the Borough of Lodi. Some of the wells in this area have exhibited radiological contamination (elevated gross alpha and gross beta levels in addition to detectable levels of radium 226). The New Jersey Department of Environmental Protection (NJDEP) first suspected a problem in August 1983 when it learned that groundwater under the site flowed south from a contaminated section of Maywood (see Maywood Chemical Sites). The available data suggests that the Maywood contamination, emanating from a former thorium-processing facility, is the source of the Lodi radioactivity. One of Lodi's six municipal wells has been closed. The study area is a heavily populated mix of industries and residences with a number of major roads and railroads in the immediate vicinity. The Saddle River, a tributary to the nearby Passaic River, passes through Lodi.

Environmental Impact

The depth to the groundwater in this area is probably 5-15 feet below the surface. The aquifer is tapped by six municipal wells that serve as a partial source of drinking water for some 24,000 people. Contamination was detected in one of these wells and it was closed down. However, any water that was actually consumed by residents was considered to be safe because it was diluted by other sources including water purchased by the borough from the Passaic Valley Water Commission. The possibility of further groundwater pollution is under investigation.

Status

Lodi's wells were sampled for radionuclides by NJDEP in September, 1983. The Lodi Borough was informed of the results confirming contamination in one well which was subsequently closed. In February 1984, NJDEP sent a letter to the United State Department of Energy (USDOE) apprising them of the contamination. A meeting was arranged between NJDEP and USDOE in May 1984 at which USDOE agreed to provide a Work Plan by the end of June indicating how they would address the hydrogeologic investigations. A gamma scan was conducted by USDOE in June 1984 using a mobile van to perform the ground survey. Several spots that warrant further investigation were identified. A follow-up soil survey was conducted by USDOE in August 1984 to focus on the areas, and the results should be available in the near future. USDOE plans to drill a series of monitoring wells in a phased program to determine whether contamination is being released from the Maywood site via ground water.

Of 97 New Jersey sites on the National Priorities List, the Lodi Municipal Wells site is ranked 89th.
Site Name

Lone Pine Landfill
Freehold Township
Monmouth County

Site Description

The Lone Pine Landfill site is located on Burke Road, off the Elton-Adelphia Road. The total area of the property is 144 acres, with the landfill covering 45 acres. The area in the vicinity of the landfill is sparsely populated with only about half a dozen residences in the immediate vicinity, the closest being 600 feet south of the landfill. Although presently inactive, the site was operated from 1958 until 1979 when it was closed by the New Jersey Department of Environmental Protection (NJDEP). It has been alleged that drums of chemical wastes were illegally disposed of at the site. Numerous drums were found during a limited excavation of the landfill in September 1981. Analysis of the contents of several drums revealed the presence of toxic organic chemicals.

Environmental Impact

Results from a geophysical investigation in July, 1981 indicated the presence of large quantities of subsurface metal. The presence of benzene, vinyl chloride, lead, zinc, trichloroethylene, chloroform and volatile organics has resulted in soil, ground water, and surface water contamination at the site. Downstream sampling of the Manasquan River indicated lower levels of the same chemicals, while sampling of ground water monitoring wells also revealed a variety of organic compounds in both the Vincentown and Red Bank Aquifers. Because the landfill is covered with sandy material and the alleged illegal dumping occurred recently, there is potential for continued ground water contamination. While the site served as an active landfill, various fires and explosions occurred which contributed to the deterioration of the environment.

The site is located immediately adjacent to the headwaters of the Manasquan River and may pose a hazard to the Turkey Swamp Fish and Wildlife Management area. The proposed reservoir system for Monmouth County, which is situated in the Manasquan Watershed, may also be threatened by contamination from the Lone Pine site.

Status

A contract between the United States Environmental Protection Agency (USEPA) and the New Jersey Department of Environmental Protection (NJDEP) was signed on July 7, 1982 to provide $330,000 for a Remedial Investigation/Feasibility Study. The USEPA contractor completed the Draft Feasibility Study in June, 1983. The Lone Pine Steering Committee, made up of several companies who either know or suspect that their waste was disposed of at Lone Pine Landfill, has commissioned their own study of the site and has committed to finance the entire cleanup according to their own assessment. Subsequently, a Draft Supplemental Feasibility Study was prepared to update and expand the Feasibility Study. In July 1984, the USEPA and NJDEP recommended a remedial action alternative which involves: the construction of a shallow slurry wall into the Hornerstown Aquifer; capping of the landfill; internal maintenance pumping; and additional monitoring of the plume prior to treatment.

Of 97 New Jersey sites on the National Priorities List, Lone Pine Landfill is ranked 6th.

10/84
Site Name

Mannheim Avenue Dump
Mannheim Avenue
Galloway Township
Atlantic County

Site Description

This two acre site is owned by Galloway Township and was used to dispose of approximately 300 55-gallon drums (11,400 pounds) of degreasing sludge during the 1960's and possibly into the early 1970's. The waste was deposited in a pit 15 feet below the ground surface.

Environmental Impact

The Cohansey Aquifer underlies the site at a depth of 20 to 30 feet below the ground surface. The homes in the area rely on the Cohansey Aquifer for their potable water supply. The nearest home is one-tenth of a mile southwest of the site.

Status

On August 3, 1982, a sample was taken of the tar/asphalt material in one exposed 55-gallon drum. The analytical results confirm the presence of degreasing material. The NJDEP is currently investigating responsible parties. Future actions include the removal of subsurface drums, an assessment of the extent of ground water contamination, if any, and negotiations with responsible parties for clean-up. This site is included on the interim Superfund National Priorities List (NPL). Of 97 New Jersey sites on the NPL, the Mannheim Avenue Dump site is ranked 74th.
Site Name

Marvin Jonas
Deptford Township
Gloucester County

Site Description

Marvin Jonas is a 10-acre site located in a rural area off Sailing Road in Deptford Township. This abandoned property is characterized by an area containing waste lagoons, three landfilling locations, miscellaneous debris and small shrub growth. An inspection by the New Jersey Department of Environmental Protection (NJDEP) on April 4, 1985 noted the presence of 20 abandoned tanker trucks, nine roll-off containers and approximately 55 drums. Also a black tar-like substance was noted in a surrounding wooded area along with tanker hoses leading to the lagoons.

For 15 years from 1968-83, this company hauled various wastes including solvents and paint and sewage sludges for disposal in New Jersey and Pennsylvania landfills. Also a solvent separation process was conducted at the site which decanted solvents off paint sludges for incineration at outside facilities.

Environmental Impact

Two on-site monitoring wells sampled by the NJDEP in June 1982 indicated organic solvent contamination from benzene, chlorobenzene, ethylbenzene and toluene. On-site conditions and documented on-site ground water contamination presents concern for contaminant migration from the site to nearby potable water sources and surface water. There is also potential for a direct contact to anyone who enters the site.

Mantua Creek, the closest surface water in the area, is located downgradient within 600 feet southwest of the site. Existing diking along the creek has been noted to be inadequate in preventing surface runoff from entering the creek.

Status

A conviction of the operator at this site for illegal disposal of hazardous waste resulted in NJDEP's refusal to renew the registration of this facility as a hazardous waste collector/hauler in October 1982. The NJDEP has reviewed closure and cleanup plans developed by the responsible party. The cleanup plan included three phases consisting of surface cleanup, surface contamination cleanup, and ground water contamination cleanup. Although cleanup was initiated, progress was not acceptable to the NJDEP.

Additional sampling was conducted under the federal Preliminary Assessment Program. As a result the NJDEP Bureau of Field Operations-Enforcement Element was notified of site conditions. The NJDEP submitted the Marvin Jonas site on July 9, 1985 to the United States Environmental Protection Agency (USEPA), Region II, for Superfund consideration.

10/85
Matlack, Inc.
Route 322
Woolwich Township
Gloucester County

This truck terminal and tanker truck cleaning operation is located southwest of Route 322 in Woolwich Township. The terminal is located to the east of Grand Spute Run, a creek which flows southwest into Raccoon Creek. Raccoon Creek is approximately 2,000 feet due south from the terminal and is a tributary to the Delaware River. Farmland borders the site to the east.

The property is characterized by a large paved parking area which surrounds a building that contains a work shop and offices. To the southern corner of the parking lot is a treatment plant, holding tanks and the former location of an unlined lagoon used for liquid waste disposal from 1962 to 1976. The lagoon was used as a repository for waste water created from the cleaning of tankers used for bulk liquid transportation of materials including oils, resins, organic solvents, and acids. This operation generated between 10,000 to 15,000 gallons of waste water per day. In 1976 the lagoon was pumped of liquids by the owner and the remaining sludge was filled over with construction debris, bulky materials and soil.

Environmental Impact

Analysis of soil and ground water samples taken by the New Jersey Department of Environmental Protection (NJDEP) during preliminary investigations (December 1982 and May 1983) and by an engineering firm hired by Matlack, have revealed the presence of contaminants including 1,1 - Dichloroethane, 1,1 Dichloroethene, Trans - 1,2 Trichloroethene, 1,1,1 Trichloroethane, 1,1,2 Trichloroethene, and 1,1,2,2 - Tetrachloroethene. Chemical odors have been detected in the area of the former lagoon. Some contaminants have also been found in production wells on site and in a shallow potable well north of Route 322. The owner of this hand dug well has been notified by the NJDEP in November 1982 of the total volatile organic concentrations of 2,000 ppb found in his well. Eight deeper wells in this vicinity have been tested and contaminants have not been detected.

Conflicting determinations of ground water flow directions have been assessed and may be a result of seasonal draw on the shallow aquifer in the silty, sandy Pennsauken Formation. This upper water bearing strata is separated from the deeper Raritan-Magothy Aquifer by at least two distinct clay layers ranging from 30 to 60 feet in thickness. These clay layers may act as a barrier to prevent vertical contamination to this deeper, important regional source of potable water.

Status

The initial site assessment at this terminal resulted in the NJDEP directing Matlack, Inc. to conduct an onsite hydrogeologic investigation and to submit findings by July 1984. The investigation was started in July 1984 and completed in October 1984 yielding geological data of the area.

In March 1985 this site was proposed for inclusion on the National Priorities List (Superfund) for cleanup. The Matlack site is included in NJDEP's Management Plan for hazardous waste site cleanups and it will be addressed with state funds if necessary.
Site Name

Maywood Chemical Sites
(Stepan Chemical)
Maywood Borough/Rochelle Park Township
Bergen County

Site Description

The Maywood Chemical sites are located near Rt. 17 and north of Essex Street in Maywood Borough and Rochelle Park Township, and consist of a number of confirmed and suspected sites scattered throughout the area. Beginning in 1915, the Maywood Chemical Company used radioactive thorium in the manufacture of gas mantles for lanterns. The resultant thorium waste, although known to be radioactive, was not considered particularly dangerous and was disbursed around the old Maywood Chemical property. Before and during World War II, the company supplied the Federal government with thorium for naval munitions and for use in the Manhattan Project which developed the atomic bomb. Dumping on the property continued through this period. Analysis of the waste material also shows significant levels of heavy metals contamination. Identical material was used as fill in several other locations in residential areas of Maywood. A few properties in Rochelle Park are thought to have been contaminated by rain runoff from Maywood. Additionally, contamination suspected to be related to the Maywood Chemical Company, has been discovered in neighboring Lodi (see Lodi Municipal Wells site description). Stepan Chemical Company purchased the property in 1959. The company was granted a storage license by the Nuclear Regulatory Commission (NRC) for temporary storage of radioactive material.

Environmental Impact

Preliminary testing by the Federal government led to a conclusion that the area did contain abnormal levels of radioactivity. Radon was detected at significantly higher than background levels in a number of private homes built throughout the vicinity. The thorium-contaminated soil, while not considered an immediate health threat, does pose a potential long-term health hazard.

Status

A Remedial Action Master Plan was initiated for the United States Environmental Protection Agency (USEPA) through the New Jersey Department of Environmental Protection (NJDEP) in June of 1983. However, in August 1983 the United States Department of Energy was appropriated $2 million by Congress to eliminate the danger posed by the contamination. Cleanup of the Maywood residences began in mid-June, 1984. Cleanup of the less contaminated Rochelle Park properties began in September 1984. The total cost, including temporary relocation of families during the cleanup, and transporation and disposal of the contaminated material, will probably be about $10 million over several years. The chemical factory property is being used as an interim low-level radiation storage facility. Regardless of the source of funding, NJDEP and USEPA will maintain remedial programmatic review.

Of 97 New Jersey sites on the National Priorities List, the Maywood Chemical Sites are ranked 22nd.
Site Name
Metaltec/Aerosystems
Maple & Wildcat Road
Franklin Borough
Sussex County

Site Description
The approximately 15.3 acre Metaltec/Aerosystems site is located south of Maple Road and is roughly bisected by Wildcat Road. There are scattered residences to the north along Wildcat Road and to the east and west on Maple Road, as well as a housing development to the east. An open field and golf course also lie to the north. An unnamed stream which flows into Wildcat Brook, a tributary of the Wallkill River, links a couple of small ponds on the property.

From 1965 until mid-1980, Metaltec Corp., a subsidiary of Aerosystems Technology, operated a facility that manufactured metal lipstick cases, pen parts, and cartridge cases at this site. Inspections by the New Jersey Department of Environmental Protection (NJDEP), Division of Water Resources, determined that Metaltec discharged wastewater contaminated with volatile organic chemicals such as trichloroethylene (TCE) trichlorethane, and tetrachloroethylene into an unlined lagoon.

Subsequent inspections revealed several other waste disposal areas that include: a drum storage and waste area, two piles of green waste material, and several open pits. The contaminants detected include other volatile organics, metals, debris, oil and grease.

Environmental Impact
Analysis has indicated that both shallow and deep ground water aquifers have been contaminated with various organic chemicals, primarily TCE. The total extent of the contaminated ground water plume has not yet been accurately defined. Area soils and surface waters have also shown some degree of contamination.

Status
In 1980, three nearby wells (two private domestic wells and a Franklin Borough backup public water supply well) were closed due to the presence of volatile organics. On June 26, 1981, NJDEP's Division of Water Resources issued an Administrative Order requiring the implementation of a remedial action plan to identify and remove contaminants from the facility and to investigate and assess the impact and extent of ground water pollution. The company subsequently hired a consultant to conduct a hydrogeological study, and partially removed and disposed of contaminated material from the lagoon. This initial study was judged inadequate by NJDEP, therefore, an Administrative Consent Order was drafted. This order, if accepted, would have required Metaltec/Aerosystems to complete a Remedial Investigation/Feasibility Study (RI/FS) and site remediation. However, the company did not agree to the terms of the order. NJDEP and the United States Environmental Protection Agency (USEPA) have since entered into a Contract in which USEPA will act as the lead agency in the remediation of this site. USEPA has selected an engineering firm to perform the RI/FS. A finalized Work Plan for conducting the RI/FS will be presented by NJDEP and the consultant in a Public Meeting scheduled for April, 1985.

Of 97 New Jersey sites on the National Priorities List, the Metaltec/Aerosystems site is ranked 31st.

3/85
Site Name

Mile Marker 28
Manchester Township
Ocean County

Site Description

Mile Marker 28 is an abandoned dump located on a 40 acre wooded lot in a rural section of Ocean County designated a Preservation Area of the Pinelands. It is bordered on the east by Route 539 and on the west by AT&T Coaxial Cable power lines which is also adjacent to the Fort Dix Military Reservation. A macadam roadway enters the property and leads to a concrete and dirt channel which ultimately enters into an area resembling a dry lagoon. It is suspected that during a period covering about three decades ending in 1973, liquid hazardous wastes were dumped into at least two unlined lagoons. Based upon generator's records, the substances consisted primarily of pharmaceutical wastes and insecticides with a total volume equaling approximately eight million gallons.

There are nine old monitoring wells that have been on site since the early 1950s and 60s. Inspection of these wells indicates that ground water is available at forty feet. Surface water runoff is toward Route 539 which leads to Blacks Branch at Rockills Branch and ultimately to Lake Horton in Lakehurst. Area soils consist mostly of Lakewood sand and gravel, making soil permeability quite high.

Environmental Impact

The shallow Cohansey aquifer provides a potable water source for local private wells. During several inspections, in 1980 and 1982 by the New Jersey Department of Environmental Protection (NJDEP), monitoring wells were sampled. Test results revealed the presence of heavy metals in concentrations above potable water standards. Further ground water testing is needed to more fully understand contaminant migration at the site.

Air contamination was also detected during an excavation of a five foot deep pit for a soil sample. Analysis by a photoionization detector and probe revealed the presence of benzene.

Status

During June of 1966, the Township of Manchester tried to stop American Cyanamid from dumping on the site; the ruling was in favor of American Cyanamid. On May 5, 1971 American Cyanamid was required by the NJDEP to obtain a permit to operate a disposal facility. They continued to operate at this location until mid-1973.

In 1982 the NJDEP ranked this site for inclusion on the National Priorities List (NPL) of sites for Superfund cleanup. Although the site has not been accepted for the NPL, it is included in NJDEP's Management Plan for hazardous waste site cleanups and it will be addressed with state funds if necessary.
Site Name

Minsei Kogyo Shoji kk America Inc.
Woodland Township
Burlington County

Site Description

This is a five acre site located in a rural section of Woodland Township in the Preservation Area of the Pinelands. The site contains approximately 20 drums, 250 five-gallon containers, 380 one-gallon containers, 600 quart containers and areas of visibly contaminated soil.

Environmental Impact

The site has the potential for ground water and surface water contamination. Soil samples taken in May 1982 have revealed the presence of contamination from various solvents, heavy metals and petroleum products.

Status

Enforcement action by the New Jersey Department of Environmental Protection (NJDEP) has resulted in the drafting of an Administrative Consent Order (ACO). Upon finalization and signing of the ACO by NJDEP and the responsible party, cleanup and further site testing will commence. The Minsei site is included in NJDEP's Management Plan for hazardous waste site cleanups and it will be addressed with state funds if necessary.

2/85
Site Name

Mirex Dump
Borough of Sayreville
Middlesex County

Site Description

The Mirex Dump site comprises approximately one-half acre of a 60.5 acre property off of Jernee Mill Road in the Borough of Sayreville. Information provided by a confidential informant through the Division of Criminal Justice, and corroborated by invoices from the transporters, indicates that ninety truck loads of material were buried at the site. The material consisted of soil, debris, and approximately 700 55-gallon drums and fiber packs. Most of the drummed material is believed to be solvent wastes from the production of Mirex, a pesticide. Most of the drums are still buried, although nine of them have been unearthed.

Environmental Impact

Sampling of the unearthed drums indicates the presence of the pesticide Mirex. Although the extent of the contamination is unknown, there is potential for ground water contamination. The ground water in the area is believed to flow to the South River.

Status

A January 1984 attempt by the New Jersey Department of Environmental Protection (NJDEP) to locate the drums was unsuccessful; however, the property owner unearthed nine drums in an independent effort in May 1984. State officials observed the unearthing. Analyses of sediment samples taken from the South River and water and sediment samples taken from the Bordentown Water Treatment Plant indicate that the Mirex site is not adversely impacting these areas. A study of fish in the South River was conducted by NJDEP in 1984. Mirex was not found at any detectable level in those fish collected and analyzed during this study. The site is under investigation by NJDEP and the Division of Criminal Justice for alleged illegal dumping of hazardous wastes. Presently, NJDEP is finalizing a scope of work and concurrently negotiating a Work Plan for a Remedial Investigation to be conducted by the responsible parties. NJDEP and other concerned parties are presently addressing the question of possible off-site contamination and further investigations.
Site Name

Mobil Chemical Company
300 Roosevelt Avenue
Carteret Borough
Middlesex County

Site Description

This site has been used for disposal of chemical wastes by both the former owner, Agrico Company (a subsidiary of Continental Oil Company), and by the present owner, Mobil Chemical Company, Phosphorus Division. The Agrico Company reportedly used the site during 1974 to dispose of an unlisted amount of miscellaneous acid solutions and drummed and bulk inorganic substances. Mobil Chemical Company, after acquiring the property in 1971 and continuing until 1975, reportedly disposed of approximately 10 tons of miscellaneous material, including air and water reactive wastes, phosphorus and sulfuric acid. Since 1976 the Mobil Chemical Distribution Service has operated a small trucking terminal and maintenance shop at the site.

Environmental Impact

The site is located along the Arthur Kill and there is concern that contaminants on site pose a threat to the waterway as well as to the soil and groundwater in the immediate vicinity.

Status

Enforcement and remedial action alternatives are currently being evaluated by the New Jersey Department of Environmental Protection.
Site Name

Monitor Devices, Inc.
Wall Township
Monmouth County

Site Description

This two-acre site is located at the intersection of Nancy and Edward Streets off Route 34 in Wall Township. The property is in an area zoned for commercial/industrial use and is adjacent to a hanger at the Monmouth County Airport. There are two structures on this parcel of land; one large building that is occupied by the business office and production lines, and one small shed used for storage. From 1977 to 1981, printed circuit boards were manufactured and electroplating processing was conducted at this site.

Protruding from the rear of the building are three pipes used to discharge process waste water directly onto the ground. A small dam was constructed at the eastern corner of the building creating a small (unlined) lagoon. Bulk storage of acid wastes was also located to the rear of the building and adjacent to the storage shed. About thirty 55-gallon drums and smaller plastic containers were found on site. A few drums were leaking and some containers were opened.

Environmental Impact

A referral by the Monmouth County Health Department resulted in initial inspections of this property by the United States Environmental Protection Agency (USEPA) in February 1980 and the New Jersey Department of Environmental Protection (NJDEP) in March of the same year. Subsequent sampling of direct discharges and ground water from three monitoring wells have revealed the presence of heavy metals, solvents and caustic acids. Significant soil and ground water contamination exists specifically from copper, lead, chromium, fluoride, and volatile organics. The permeability of sand and gravel soils and the eleven foot depth to ground water creates a potentially easy route for contaminants to enter underlying aquifers. The off-site extent of contaminant migration is currently unknown, although the direction of ground water flow has been initially determined to be to the northeast. Chemical odors have been detected as a result of volatilization of contaminants in the discharges. The closest private potable well is located about one mile from the site.

Status

In May 1980 the NJDEP's Division of Water Resources issued an Administrative Order and a Notice of Civil Administrative Penalty Assessment for unpermitted waste water discharges. Under this order, Monitor Devices was to install monitoring wells, sample the wells, and decontaminate the ground water. Compliance to only the installation of three monitoring wells resulted in the Division's referral of this case to the State Office of the Attorney General in January 1983. Also during 1983 the Monmouth County Prosecutors' Office initiated a criminal investigation against Monitor Devices, Inc. This action resulted in a guilty plea and the company's agreement to pay $100,000 for cleanup commencing in September 1984. Payment has not been received and
remedial action has not been initiated at the site. Responsible party civil liabilities have not been satisfied by the criminal investigation.

In March 1985 this site was proposed for inclusion on the National Priorities List for Superfund cleanup. The Monitor Devices site is included in NJDEP's 1985 Management Plan for hazardous waste site cleanups and it will be addressed with state funds if necessary.
Site Name

Monroe Township Landfill
Spotswood and Gravel Hill Road
Monroe Township
Middlesex County

Site Description

This 36-acre landfill is located approximately two and one-half miles west of County Route 527 and two miles north of County Route 522. The site was first operated by Monroe Township in 1955, then leased to the Princeton Disposal Company in 1968, and finally acquired in 1976 by Browning Ferris Industries (BFI) of South Jersey, Inc. headquartered in Houston, Texas. The New Jersey Department of Environmental Protection (NJDEP) ordered the landfill closed in June, 1978 when leachate overflowed onto Lani Avenue creating a potential health hazard and causing the abandonment of a housing construction project. In 1979, the NJDEP obtained a court order against BFI to halt the seepage.

Leachate analyses showed the presence of such hazardous chemicals as 1,1,2,2-tetrachloroethane, toluene and benzene, indicating that hazardous materials were probably buried along with the municipal waste, allegedly through "midnight dumping." Hydrochloric acid is known to have been lagooned at the site.

Environmental Impact

The leachate is contaminating streams which drain the landfill area and is seeping into the shallow water table of the Englishtown Formation where contamination is severe. A year-long investigation, including soil borings and the installation of more than a dozen ground water monitoring wells by the NJDEP and BFI, indicated contamination of the ground water in the Magothy Formation. Geophysical surveys, performed in April 1983 and February 1984, consisting of terrain conductivity measurements further indicate potential ground water quality problem spots. The Magothy Formation is used as a source of supplemental water supply in the summer from a well located approximately 2,000 feet northeast of the site. Sampling of this well has thus far indicated no contamination that could be attributed to the landfill.

Status

A $5 million remedial closure plan to stop surface and ground water pollution of the Englishtown Aquifer was agreed to by NJDEP and BFI in February 1982, with BFI providing the funds. In October, 1984, BFI submitted its Phase II Landfill Closure report which is currently being reviewed by NJDEP. The report details the installation of a leachate cut-off wall; an underground drain to collect leachate; a nearly impervious clay cover of more than 20 acres; seep collectors to channel surface pool leachate; and a sewer line to the Outcalt interceptor sewer now under construction. The system collects and delivers the leachate through the existing sanitary sewer to the sewage treatment plant on a continuous basis. The leachate will eventually be conveyed through the Outcalt interceptor sewer. The Consent Order calls for on-going monitoring of ground water quality. A meeting was held in October 1984 between NJDEP and BFI to discuss further sampling of the monitor wells, lagoons and the area adjacent to the residences for methane gas.

Of 97 new Jersey sites on the National Priorities List, the Monroe Township Landfill site is ranked 52nd.

11/84
Site Name

Montgomery Township Housing Development
Montgomery Township
Somerset County

Site Description

The Montgomery Township Housing Development consists of 71 approximately one-acre residential sites situated on Sycamore Lane, Robin Drive, Oxford Circle and Cleveland Circle. The development is located east of Route 206, north of Route 518, west of the Millstone Creek, and south of Bedens Brook and Montgomery Road. The tract was formerly used for farming and the adjacent properties to the north are still wooded or agricultural lots. To the south of the site is the Borough of Rocky Hill which is primarily residential. The homes at the end of Cleveland Circle are bordered by the Millstone Creek which flows north from Lake Carnegie, paralleling the Delaware Raritan Canal, and flows into the Raritan River near Bound Brook.

Environmental Impact

In 1978-1979 Rutgers University prepared a study on the quality of water from the Rocky Hill Municipal Well #2. Initial sampling revealed contamination by trichloroethylene (TCE) at the level of 25 parts per billion (ppb). Continued testing of this water supply revealed that by November 1979, TCE contamination had increase to 400-500 ppb. At that point, concern over these findings triggered a sampling program for the neighboring Montgomery Township Housing Development where each of the homes has a private well. TCE was detected in half of the wells at levels varying from trace amounts to greater than 500 ppb along with lesser amounts of halogenated compounds.

There has never been any indication that the TCE contamination has arisen from a source within the housing development itself. All indications point to pollutant migration from a combination of potential sources outside the development, all of which have a documented history of contaminated well, septic system, or soil samples.

The major public health concern remains the fact that some residents may still be using TCE-contaminated well water. While public water lines were installed within a year of the discovery of the problem, only 20 of the residences have been connected to the system. One resident has installed a Culligan filter which reportedly is adequately treating his well water. There remain approximately 35 homes that have detectable TCE contamination but have not paid for public water hookup. The flow of contaminants in the fractured rock aquifer is difficult to predict and future samples may show contamination of previously clean wells.

Status

A Cooperative Agreement was signed by the United States Environmental Protection Agency and the New Jersey Department of Environmental Protection in September 1984 providing funds in the amount of $550,000 to conduct a Remedial Investigation/Feasibility Study at the site.

Of 97 New Jersey sites on the Superfund National Priorities List, the Montgomery Township Housing Development is ranked 64th.
Site Name

Myers Property
Lower Kingston Road
Franklin Township
Hunterdon County

Site Description

The Myers Property is located in a rural area that borders the Cakepoulin Creek. There is a spring that surfaces on the property and flows into the creek toward a State Wildlife Refuge. The site is currently being used as a private residence, but has been used by various types of commercial facilities in the past.

The United States Environmental Protection Agency (USEPA) completed an Immediate Removal action in June 1984, to remove various types of solid chemicals, pesticide wastes and asbestos that were on site. The one potable well on the property has not been affected by the wastes, based on sampling by the USEPA.

Environmental Impact

Contamination of ground water has been suspected and there was concern about the potential for surface water contamination. However, sampling and analysis has not revealed any migration of contamination from the site.

Status

Action at the site to date includes sampling of the wells, spring, and surface water. An immediate removal program was conducted by the USEPA in April, 1984. At that time, all contaminated surface materials were placed in approved safety drums, which have been removed from the site. Future remedial actions will include a final study to ensure that the site is free of contamination.

Of 97 New Jersey sites on the National Priorities List, the Myers Property is ranked 84th.
The NL Industries site is located in a rural area on a 14 acre tract of land, part of which is marshland. The landfill itself covers roughly six acres and the Penn Central Reading-Seashore Lines Railroad runs through the site. Oldman's Creek, a tributary of the Delaware River, flows through the property. The plant, which ceased operations in 1981, was a secondary lead smelting facility designed to recover lead from spent automotive batteries. The by-products generated from this process (slag and chopped rubber and plastic battery casings) were deposited in a double lined landfill which is now fully capped with a drainage layer/vegetative base soil top cover.

Environmental Impact

As a result of poor landfill maintenance, improper storage of spent batteries on the site and other factors related to their processing, the surrounding soil, ground water and surface water have become contaminated with various heavy metals, primarily lead and arsenic. Ground water analyses were conducted through sampling of monitoring wells in the vicinity of the landfill. The underlying Cape May Aquifer is a source of irrigation and process water and the sole source of potable water in the area. However, most residences are served by the Pennville Water Department whose wells are several miles from the site. Soils heavily contaminated with lead have been removed from the marsh area, replaced with clean fill and disposed of on site at the landfill. The slag piles are thought to contain sulfides which react with rain water to form sulfuric acid.

Status

In March 1983, National Smelting of New Jersey purchased the Pedricktown facility from NL. National Smelting assumed responsibility for maintaining compliance with all soil, ground water and surface water standards at the site, regardless of the discharge source or whether or not it was caused by prior activities of NL. However, National Smelting subsequently filed for bankruptcy and the property was turned over to the New Jersey Department of Environmental Protection (NJDEP) as an abandoned site in July 1984. NL had already cleaned all exposed paved areas and removed approximately three acres of contaminated soil to an on-site landfill. NL was required to pay $600,000 to NJDEP for the agency to monitor and remedy existing ground water pollution at the facility. NL has filed a closure/post closure plan for the lined landfill which includes remediating all ground water contamination which might emanate from the landfill operation. NL arranged for some of the surrounding residences to be hooked up to the public water supply. NL also designed a ground water pollution abatement system which was supposed to pump contaminated groundwater to the surface where it would percolate down into the soil again in a continuous cycle. This would have limited the migration of contaminants in the groundwater, however, the system did not work as planned and as a result, standing surface water at the site is now contaminated. National Smelting's operation of the facility has left an additional 15,000 cubic yards of slag material on site; the paved areas and impounded surface water runoff are presumed to be contaminated. A post-closure care plan is still needed, including regular leachate pumping and cover maintenance. NJDEP is working with the United States Environmental Protection Agency (USEPA) and other government agencies to supply public water to the remaining affected residences and to further investigate the site including the sampling of the slag piles and impounded surface water. Of 97 New Jersey sites on the National Priorities List, the NL Industries site is ranked 19th.
Site Name
Nascolite Corporation
Millville
Cumberland County

Site Description
Nascolite Corporation is located on a 17.5 acre tract in a partially wooded area, approximately one mile north of Millville. It lies south of State Highway 55, west of Wheaton Avenue and east of the Conrail tracks. The study area, however, encompasses roughly 50 acres of the affected vicinity and contains the entire Nascolite property, the Luciano Brothers' Scrap Iron Yard (situated 200 feet across the tracks from Nascolite), a few small businesses, and four or five residences. Until 1980, Nascolite operated for 27 years manufacturing acrylic sheets. Methyl methacrylate (MMA) was the main raw ingredient used in the production process. Until recently, approximately 150-200 drums and a number of other containers of various hazardous substances were stored on site both above and below ground. Perforations in some of the drums indicated the possibility of liquid waste disposal into the soil. A ditch running between the plant and the railroad tracks was also used for the disposal of waste matter. Residues from solvents and MMA have been found in the ditch. Parts of the adjacent property belonging to Luciano Brothers Scrap Iron Yard are saturated by oil, grease and other liquids.

Environmental Impact
Samples taken from four monitoring wells on the study site indicate serious ground water pollution; at least nine priority pollutants, including volatile organics and base/neutral compounds, were found at significantly elevated levels. One of the contaminated monitoring wells appears to be upgradient from the Nascolite plant, suggesting that the extent of the problem is not fully known and continued investigation is needed. Soil samples from locations near the plant and from the ditch revealed similar pollutants and other volatile hydrocarbons. Air samples have not been taken, although portions of the site are permeated by strong chemical odors. Ground water in the area serves as a potable source for some 19,700 residents and this supply is threatened by contamination.

Status
In February 1980, the New Jersey Department of Environmental Protection (NJDEP) issued an Administrative Order (AO) which required Nascolite to address the contamination, cease their current disposal practices and pay a $2,500 penalty. Nascolite ended operations after receipt of the AO. In September 1981, Nascolite and NJDEP entered into an Administrative Consent Order (ACO) which reiterated and amended the requirements of the 1980 AO. Nascolite paid a fine of $1,250 under a Modified Penalty, but did not fully comply with the ACO. In October 1983, NJDEP and Nascolite representatives met to discuss the hydrogeological study and remediation necessary at the plant site, at which time Nascolite agreed to submit a work plan. Although a plan was not presented, the property owners removed the 150 to 200 on site drums during the summer of 1984; NJDEP is planning to address the remaining contamination. A Cooperative Agreement between NJDEP and the United States Environmental Protection Agency (USEPA) to commit $500,000 for the performance of a Remedial Investigation/Feasibility Study (RI/FS) was signed in March, 1984. A contract to initiate the RI/FS is expected to be awarded in November, 1984.

Of 97 New Jersey sites on the National Priorities List, the Nascolite Corporation site is ranked 23rd.

10/84
Site Name

Naval Air Engineering Center
Lakehurst Borough
Ocean County

Site Description

The Naval Air Engineering Center (NAEC) at Lakehurst consists of 7300 acres within a 43,000-acre expanse of contiguous military installations that include Fort Dix and McGuire Air Force Base. Although over the years the size of the Lakehurst facility and its functions have changed, its major function has always been development and testing of weapons systems. Adjacent properties include agricultural lands, landfills and a state wildlife refuge.

Improper waste disposal practices have led to soil, ground water and surface water contamination. The dumping took place near water wells, a working cranberry bog and two creeks flowing off the base which borders Jackson, Manchester and Plumsted Townships. Forty-four sites potentially contaminated with hazardous material have been identified.

Environmental Impact

The site constitutes a major portion of the Toms River drainage basin within the general area of the New Jersey Pinelands. Several headwater tributaries of the Toms River arise on site including the Manapaqua Brook, the Obhana Ridgeway Branch, the Harris Branch and the North Ruckels Branch. There are several ponds of both natural and man-made origin on site. The highly permeable nature of the soil and the presence of a shallow aquifer contribute to the potential for contaminant migration. In addition, all three base landfill sites appear to have involved filling wetland areas.

Testing of drinking water from the three water systems at the base has indicated extensive system-wide contamination of the ground water.

In addition, the contamination of the water supplied to off-base Navy housing units by the Lakehurst Municipal System has occurred and the Borough of Lakehurst has closed one of its seven municipal wells because the presence of benzene was detected at levels of 1.9 parts per billion (ppb) and 1.6 ppb. No detectable levels of benzene were found in the other six wells.

Status

On August 14, 1985 the New Jersey Department of Environmental Protection (NJDEP) sampled 12 potable wells around the NAEC which revealed trace amounts of benzene. On September 5, 1985 the United States Environmental Protection Agency (USEPA) and the NJDEP conducted off-site sampling of 11 potable wells, surface water, and sediments. One of these samples indicated contamination. Again on September 6, 1985 NJDEP sampled five municipal wells and four residential wells, the results of which indicated trace levels of contaminants. NJDEP is conducting additional off-site sampling on October 29, 1985.
In August 1985 officials of the NAEC and their consultant met with NJDEP, USEPA, and the Pinelands Commission to discuss their proposed work plan for a confirmation study of the 44 sites. Subsequent to this meeting, NJDEP, USEPA and the Pinelands Commission submitted their comments to the Naval Air Engineering Center. As soon as the NAEC revises their work plan to meet the approval of the NJDEP, USEPA, and the Pinelands Commission, they will implement the next phase of the study to verify specific areas of contamination.
Site Name

Ottilio Landfill
Newark
Essex County

Site Description

The Ottilio Landfill is composed of two adjacent undeveloped lots which encompass approximately 6.4 acres on Blanchard Street. This presently inactive site is located in the commercial/industrial northeastern section of Newark. The site is bordered on the east by a Pennsylvania Railroad spur, to the south and west by industrial development, while the northern boundary is adjacent to the proposed site for the Essex County Resource Recovery Facility. Currently half the site is owned by the city of Newark and half is owned by Deleet Merchandising Corporation. However, it was previously operated by V. Ottilio and Sons of Paterson, New Jersey. Materials disposed of at the site consisted mainly of construction debris, however, oil has been observed in the drainage ditches and ponds. In 1974 an unknown number of chemical drums were disposed of in this area. It is suspected that the site was used for illegal dumping prior to and during the Ottilio operation. Presently the site is about six feet above the original ground surface. Overgrown weeds and underbrush are covering the site. Empty 55-gallon drums are strewn along the edge of the fill area. There are no fences or gates to prevent access to the property.

Environmental Impact

In July 1980 the United States Environmental Protection Agency's (USEPA) Field Investigation Team analyzed samples taken from the drainage ditches and the collection pond. Low levels of pentachlorophenol, as well as several pesticides in the collection pond, were detected. Elevated levels of metals and base neutrals were detected in the north and south ditches. There is also evidence of pesticides and polychlorinated biphenyls (PCBs). Flow from these ditches ultimately discharges to the Passaic River, approximately 1,800 feet from the landfill. In addition, content analysis of an exposed drum revealed the presence of PCBs at a level which is one-half of the USEPA standard for PCB contaminated soil. During a site visit in April 1984, the New Jersey Department of Environmental Protection (NJDEP) observed leachate seeps from the northern edge of the fill and a strong chemical odor was evident along the railroad tracks.

Status

In June 1974, the State sued V. Ottilio and Sons as well as both property owners for operating the landfill without NJDEP permits and for violating solid waste regulations. Subsequently, the responsible parties paid certain penalties and applied for permits to continue landfilling operations. In January 1975, the NJDEP granted a solid waste disposal facility registration to V. Ottilio & Sons provided that site preparation activities and monitoring requirements were implemented prior to resuming landfill operations. Site observations indicated that the solid waste registration provisions were never complied with, although landfilling operations were continued. By April 1979, the Solid Waste Administration determined that landfill operations were officially terminated.
In March 1984, NJDEP's Division of Waste Management issued Directive Letters to the property owners and former landfill operator requiring an investigation and remedy to the potential hazardous waste problems. Neither the owner nor the operator would acknowledge responsibility for the site. Ottilio Landfill was submitted by NJDEP to the USEPA for Superfund consideration, however, in May 1984 USEPA did not include the site on the National Priorities List. Presently, the site is included in NJDEP's Management Plan for hazardous waste site cleanups. NJDEP is pursuing utilization of the Spill Fund to pay the expense of a Remedial Investigation/Feasibility Study.
Site Name

PJP Landfill
400 Sip Avenue
Jersey City
Hudson County

Site Description

This is an inactive landfill located on an 82-acre tract of land between Routes 1 and 9 and the Hackensack River in a mixed residential/industrial urban area. About 3,500 feet of the elevated General Pulaski Skyway, which serves as a primary link between Newark and the Holland Tunnel, passes over the site.

Prior to its use as a landfill, the site was a marsh at or below the level of the Hackensack River. Fill material has elevated it approximately 30 feet and exposed wastes are in direct contact with the river. It is suspected that undetermined quantities of hazardous substances were disposed of at these sites both during and after its period of operation as a registered landfill (1969-1974). Scattered drums are visible on the surface of the site and other subsurface drums have become visible because of cave-ins resulting from subsurface fires that have been burning since the early 1970's. The nature of the fires, which are alleged to move from place to place, is in question. However, there is evidence of fire damage on all four of the separately-owned parcels that constitute the former landfill property.

Environmental Impact

Toxic substances have been discovered in the air, the ground water and surface leachates. The local water table aquifers are brackish and are used for industrial processes. Surface waters in the area are used as commercial shipping lanes and for limited recreation.

Status

On April 30, 1973 an Administrative Order was issued closing the landfill. Recently, three of the property owners were asked by the N.J. Department of Environmental Protection (NJDEP) to initiate remedial investigations on their respective parcels in order to characterize the site and develop remedial alternatives for cleanup. The results of one such study submitted to NJDEP, indicate the presence of hazardous substances in ground water and soil. Presently, the Department has engaged a contractor under an Immediate Remedial Measure (IRM) to develop a detailed engineering design for extinguishing the subsurface fire.

Of 97 New Jersey sites on the National Priorities List, the PJP Landfill is ranked 97th.
Site Name

Pepe Field
Boonton Town
Morris County

Site Description

Pepe Field is a 35-acre public athletic park located on Hillside Avenue and Wooton Road. The site is situated in a residential area that was formerly a swamp. The nearby Rockaway River empties into the Boonton Reservoir. The swamp is thought to have been used for waste dumping, some of which may have been hazardous, during the 1930s and 1940s. The site's recreational facilities (playground, athletic fields, basketball courts, etc.) have been closed to the public, although, it is evident that people still use the field.

Environmental Impact

The Rockaway River receives subsurface drainage from the site. The Boonton Reservoir serves as a potable water supply for the residents of Jersey City. Samples taken from an underground drain that discharges directly into the Rockaway River, revealed the presence of low levels of the pesticide Lindane and other unidentified hazardous compounds. A white foamy liquid discharges into the drainage system. Hydrogen sulfide and other chemical odors are almost continuously evident.

Status

A preliminary investigation of the site was conducted by the New Jersey Department of Environmental Protection (NJDEP) in 1981. A Directive Letter was issued by NJDEP to the town of Boonton to obtain a wastewater discharge permit for the discharge from Pepe Field. The United States Environmental Protection Agency (USEPA) prepared a site Remedial Action Master Plan, which was reviewed by NJDEP in March, 1984. NJDEP and USEPA entered into a Cooperative Agreement in October 1984 to commit approximately $653,000 in Federal funds to perform a Remedial Investigation/Feasibility Study at the site. The project is expected to begin in late January, 1985 and be completed in the summer of 1985.

Of 97 New Jersey sites on the National Priorities List, Pepe Field is ranked 85th.
Site Name

Pijak Farm
(Off) Fisher Road
Plumsted Township
Ocean County

Site Description

The Pijak Farm is one of seven "Plumsted" sites in the Ocean and Monmouth County area. It is located approximately two miles northeast of New Egypt, about 1,000 feet south of County Route 528, and 1,300 feet west of Fisher Road. All seven sites are within an approximately twenty-square mile rural farming area. From around 1962 until the early or mid-1970s, the contaminated area was used for the surface dumping of drums and free-flowing liquid hazardous waste (except for some 4,000 cubic yards of buried wastes). The site, covering roughly one acre, is situated adjacent to Stony Ford Brook which joins the Crosswicks Creek, a tributary of the Delaware River.

Environmental Impact

The site's underlying ground water aquifers provide a potable water supply for the surrounding area. Both ground water and soil sampling have indicated organic chemical contamination. Contaminated ground water from the site discharges into Crosswicks Creek. Most organic pollutants found at the site were not priority pollutants (only minor concentrations of priority pollutants were found). Review of the available data on toxicity for these non-priority pollutants indicated that the greatest potential for adverse health and environmental effects were found in soil rather than in water.

Status

The site was first identified as a waste disposal site by the New Jersey Department of Environmental Protection (NJDEP) in February, 1980. In March of that year, NJDEP recommended the denial of a permit to construct 43 single-family residences on site. Observation wells were installed by NJDEP in June, 1980. Also in June, several surface water samples were analyzed. In July, 1981 the United States Environmental Protection Agency (USEPA), Environmental Photographic Interpretation Center completed an evaluation of time sequential aerial photography spanning the years 1940-1979. A Cooperative Agreement between USEPA and NJDEP was signed in September, 1982 to commit $330,000 for a Remedial Investigation/Feasibility Study (RI/FS). A Draft Feasibility Study was completed in August, 1984. NJDEP has finalized a Record of Decision to be submitted to USEPA. This includes the removal and disposal of waste and visually-contaminated soil, removal and disposal of any contaminated stream sediments and/or ground water, ground water monitoring for five years, and regrading and site restoration. Engineering Design funding is scheduled for the first quarter of FY '85.

Of 97 New Jersey sites on the National Priorities List, Pijak Farm is ranked 46th.

10/84
Site Name
Pomona Oaks Well
Galloway Township
Atlantic County

Site Description
Pomona Oaks is a residential development in a rural/residential area of Galloway Township. It is comprised of approximately 200 single family homes clustered on one-quarter to one-half acre lots. All of these homes depend on the use of ground water from private wells which have an average depth of 50-60 feet. At this time the source and extent of volatile organic contamination in the upper water bearing zone is unknown.

Environmental Impact
Private well and shower air monitoring at several residences revealed the presence of the following volatile organics: benzene; 1,2-dichloroethane; 1,2,4-trimethyl- benzene and toluene. Residents were advised by the New Jersey Department of Health (NJDH) to seek alternate sources of potable water. Furthermore, it was strongly suggested that some residents cease using their well water for bathing purposes. Since there are no municipal wells in the area, affected residents have resorted to using bottled water. Presently the impact of volatile organic air release inside the residential dwellings is being monitored by NJDH. Approximately 8,000 people within a three-mile radius of the site could be affected by the contaminated ground water.

Status
Investigations to determine the source of contamination have been unsuccessful. The Atlantic County Department of Health, however, is continuing its investigation. The New Jersey Department of Environmental Protection (NJDEP) hired a contractor to conduct a study to fully evaluate and recommend alternate water supplies. The study was completed in March 1984.

In September 1984, the NJDEP and the New Jersey Spill Fund contracted with Galloway Township to finance the construction of an interconnection with a nearby water system and distribution system to service the Pomona Oaks development. The United States Environmental Protection Agency (USEPA) and NJDEP have agreed to share the cost of a water supply well and wellhouse.

In October 1984 the Pomona Oaks Well site was approved by the USEPA for inclusion on the National Priorities List (NPL). Of 97 New Jersey sites on the National Priorities List, the Pomona Oaks Well is ranked 91st.
Site Name

Powers Farm
County Line Road (Route 526 East)
Jackson Township
Ocean County

Site Description

This is a 168-acre site in a rural area which has been proposed for a housing development consisting of 276 units. Large quantities of liquid and solid wastes were allegedly dumped directly on the ground. In 1976 a large pit containing an estimated 3,000 gallons of chemicals and approximately 100 drums (containing paint wastes and chemicals) were discovered on the property. A private cleanup was conducted which entailed excavation and removal of the drums and soil, however, this cleanup was not completed.

Environmental Impact

In June 1984 air monitoring at the site indicated the presence of volatile organic chemicals at levels as high as 200 parts per million (ppm). These readings were taken in an area close to four mounds of contaminated soil. The site is situated on relatively permeable sandy soil and bounded by two tributaries of the South Metedeconk River. There is concern, therefore, about both ground water and surface water contamination.

Status

In October 1985 the property owner removed the mounds of contaminated soil to a hazardous waste facility. However, the full extent of contamination has not been delineated, and a comprehensive investigation should be performed. The New Jersey Department of Environmental Protection is currently negotiating an Administrative Consent Order with the property owner. The Order will include implementation of a field sampling and laboratory quality assurance plan, a health and safety plan and a program for remedial action. In addition, the site has been proposed to the United States Environmental Protection Agency for inclusion on the National Priorities List for Superfund.
Site Name

Pratt-Gabriel (Division of Miller Chemical and Fertilizer Corporation)
Washington Township
Mercer County

Site Description

Pratt-Gabriel is an active division of Miller Chemical and Fertilizer Corporation, located at 122 Sharon Road, immediately east of the Robbinsville-Trenton Airport and west of Spring Garden Road in a predominantly rural area. Miller Chemical and Fertilizer Corporation has owned the facility since 1979; it was previously owned by Gabriel Chemical Ltd. The facility is used to mix and repack pesticides including insecticides, herbicides and fungicides. The area of concern is an underground pit which was used from at least 1964 to 1975 for the disposal of chemical mixer wash water.

Environmental Impact

Soil sample analysis revealed the presence of chlordane and DDT. Sample analysis of monitoring wells has indicated that the ground water is contaminated with lindane, chlordane, DDT, and volatile organic compounds. Some private wells in close proximity to the site were tested and found to contain traces of chlorinated pesticides. As a precautionary measure, the East Windsor Health Department advised the affected residents not to drink their well water even though the detected levels of chemicals are within potable standards. At this time there is no conclusive evidence that implicates Pratt-Gabriel as the source of the off-site contamination. It has been alleged that the air in the vicinity of the site is also contaminated. Several citizen complaints of odors emanating from Pratt-Gabriel have resulted in investigations by the New Jersey Department of Environmental Protection's (NJDEP) Bureau of Air Pollution, the local Health Department, and NJDEP's Office of Pesticide Control.

Status

On April 8, 1982 a directive from NJDEP, Division of Water Resources (DWR) was issued to Pratt-Gabriel to excavate the disposal pit and to eliminate the contaminated material. This process was monitored by NJDEP's Bureau of Hazardous Waste to ensure compliance and proper disposal. As of February 1984 the NJDEP, DWR has requested that Pratt-Gabriel hire a consultant to delineate the extent of pollution and to design and implement a remedial action plan. The company has demonstrated a willingness to cooperate. However, if the company does not follow through with the plan an Administrative Order will be issued. The property that Pratt-Gabriel occupies was sold in December 1983 and Pratt-Gabriel is now leasing the facility. In December 1984, Miller Chemical and Fertilizer Corporation ceased operations at the Pratt-Gabriel site. This site is now subject to the Environmental Cleanup Responsibility Act.

NJDEP proposed the Pratt-Gabriel site for inclusion on the 1984 National Priorities List (NPL), however, it was not selected by USEPA for the Interim NPL.
Site Name

Price's Landfill (#1)
Mill Road
Pleasantville City/Egg Harbor Township
Atlantic County

Site Description

This is an inactive site covering an area of 26 acres which had been operated as a sand and gravel mining pit before it was converted to a private landfill in 1969. During the early 1970s industrial wastes including benzene, chloroform, trichloroethylene, sludges, grease, oil and septic tank/sewer wastes were disposed of at the site. Documents indicate liquid chemical wastes were poured directly into the landfill as well as buried there in 55-gallon drums.

Environmental Impact

Chemical odors are detectable at various locations on the site and severe ground water contamination exists from leachate seepages. There are approximately 35 residences with private shallow wells within a one-mile radius of the site. Sampling of these wells has indicated serious contamination and the public water supply system has been extended to these homes. Also within a one-mile radius of the site is the former wellfield of the Atlantic City Municipal Utilities Authority (ACMUA) which was closed because of the threat of contamination by migration of the contaminant plume from Price's Landfill.

Status

In December, 1980 the Federal government filed an action under the Resource Conservation and Recovery Act and the Safe Drinking Water Act against the former owner of the site. The action was aimed at insure that appropriate remedial measures are taken to alleviate problems which are the result of past improper waste disposal practices. The complaint was amended to include Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) violations against 36 companies and individuals alleged to have generated and transported waste to the landfill.

In December, 1981 the United States Environmental Protection Agency (USEPA) prepared a Remedial Investigation/Feasibility Study (RI/FS) for site remediation and devised an Interim Water Supply Plan for the summer of 1982. In May and June, 1982 the New Jersey Department of Environmental Protection (NJDEP) entered into a contract for $250,000, as well as a Cooperative Agreement for $340,000, in order to accomplish the work needed to implement the 1982 plan which included ground water monitoring and facility upgrading. Subsequently, the NJDEP conducted the 1982-83 Winter Monitoring Program.

On September 29, 1983, the Cooperative Agreement was amended to provide $1,564,000 for the design of the new Atlantic City Municipal Utilities Authority (ACMUA) wellfield and the conceptual design for site remediation. The Cooperative Agreement to allocate $5,521,762 for the construction of the ACMUA wellfield was signed on October 27, 1983.

On April 17, 1984 a contract was signed for completion of the RI/FS and conceptual design for site remediation.

Of 97 New Jersey sites on the National Priorities List, Price's Landfill is ranked 3rd.
Site Name

Price's Landfill (#2)
Adams and Doughty Road
Pleasantville City
Atlantic County

Site Description

This site is located in a low-lying area that has been graded with backfill materials. While it has not been confirmed that discharge of a hazardous substance has occurred at this site, existing documentation indicates that this site was used for the disposal of drummed wastes.

Several commercial and residential properties are located within a quarter-mile radius of the site.

Environmental Impact

This site overlays the Cohannsey Aquifer, the primary source of potable water for the area. There is concern about ground water contamination which not only could affect this particular geographic location, but may contribute to the problems related to Price's Landfill #1.

Status

The New Jersey Department of Environmental Protection has secured the services of a consultant to collect data to determine whether or not hazardous substances are present and to evaluate the hydrogeology of the site. Future action will depend on the results of these investigations.
Site Name

Price's Landfill (#3)  
Fire Road  
Egg Harbor Township  
Atlantic County

Site Description

This site is a large abandoned sand and gravel pit which has been used as an unregistered dump for tree stumps, demolition debris and large household items (refrigerators, couches, etc.).

The site is bordered on the north by Mays Landing Road and Doughty Road, on the south by Delilah Road, on the east by Fire Road, and on the west also by Doughty Road. Jarrets Run Creek bisects the site and flows easterly to Absecon Creek. Absecon Creek flows southeast for two miles and empties into Absecon Bay. The Atlantic City Reservoir is located approximately one mile north of the site and several commercial and residential properties are located within a half-mile radius of the site. Some of these residences have private wells which draw from the Cohansey Aquifer.

Environmental Impact

This site overlays the Cohansey Aquifer, the primary source of potable water for the area. There is concern about both surface water and ground water contamination which not only could affect this particular geographic location but may also contribute to problems related to Price's Landfill #1.

Status

The New Jersey Department of Environmental Protection has secured the services of a consultant to collect data to determine whether or not hazardous sustances are present and to evaluate the hydrogeology of the site. Future action will depend on the results of these investigations.
Site Name
Quanta Resources Corporation
Edgewater Borough
Bergen County

Site Description

This site is bordered on the east by the Hudson River, between the George Washington Bridge and Lincoln Tunnels, and consists of an inactive facility formerly used for storage, reprocessing and reclamation of waste oil. The site is also bordered to the north by a fresh produce distribution warehouse, and a fertilizer distribution facility to the west. Condominiums atop the Palisades overlook the site from 1/2 mile to the west.

Within the facility there are four tank farms (A,B,C & D), an oil/water separator, a process building and an office trailer. The 61 above-ground tanks range from 20,000 to 600,000 gallons and have a combined capacity of 9 million gallons. Ten below-ground tanks have an estimated capacity of 40,000 gallons. Many of the steel plate tanks have wooden roofs which, in some cases, are partially or totally collapsed and allow rainwater to enter. The contents are stratified and consist of a layer of heavy sludge at the bottom, an oil layer and water. Tank farms B and C hold polychlorinated biphenyl (PCB) contaminated oil with concentrations as high as 260+ parts per million.

Environmental Impact

The Hudson River in this area is a very important shipping lane, contains many marinas and has been cited as important Striped Bass habitat. Pathways from the site, amounts and concentrations and proximity to the public create the potential for substantial problems. In addition to PCBs, benzene, toluene, phenol, ethyl benzene, trichloro-ethane, lead, cyanide, anthracene and chloroform, have been found at the site. Some storage tanks have been found to have low flash points which increases the possibility of fire and explosion which could create toxic fumes. Dikes have been placed around the storage areas, but are inadequate. Soils in the tank farm areas are grossly contaminated and drainage from the site has resulted in releases of oil to the Hudson River. Seven such spills have been recorded by the United States Environmental Protection Agency (USEPA) alone, between February 1982 and September 1983. Contaminate booms/sweeps in place are not effective due to the lack of maintenance. The deteriorating tanks on site could produce a major spill which could also mitigate to River Road which is a main local thoroughfare.

Status

The New Jersey Department of Environmental Protection (NJDEP) halted all operations at this facility on July 2, 1981 when it learned of the contaminants on site. As a result, Quanta filed for bankruptcy on October 6, 1981. The owners have been charged with hazardous waste violations in four states involving other operations. Two employees have been convicted. During this time both the USEPA and NJDEP have been involved in a regulatory battle with the responsible parties to provide remedial cleanup and preventive measures. On
September 13, 1982 and December 14, 1982 the NJDEP and USEPA, respectively, sent Notice Letters to Quanta which resulted in minimal cleanup activities through the Spring of 1983. These activities such as diking, boom/sweep maintenance, winterizing and rehabilitation have been implemented by their own consulting engineers but have not been maintained, thus rendering them virtually useless. A new set of Notice Letters were sent by the USEPA on September 8, 1983 and an Administrative Consent Order (ACO) was signed by the NJDEP and landowners. Both acts resulted in extremely limited and insufficient responses far from the broad based site cleanup required. The site has been referred to the Attorney General's Office for ACO enforcement.

The period from July 31, 1984 to November 27, 1984 saw 193,750 gallons of oil and 107,500 gallons of waste conversion water removed from tanks A and D by contractors for the property owners. On October 15, 1984 a New Jersey Pollution Discharge Elimination System Permit (NJPDES) was issued for a reconditioned oil/water separator.

The NJDEP has requested assistance from the USEPA to mitigate site cleanups and for inclusion on the National Priorities List (NPL) for Superfund cleanup. The USEPA, the lead agency, and the NJDEP are currently reaching a final decision as to the Immediate and Planned Removals. Immediate Removals could be started with the approval of an Action Memorandum from the USEPA on January 22, 1985. The Planned Removal pends finalization of State/EPA Contract agreement. Project costs are anticipated to reach 4.5 million dollars and take 10 months for completion.
Site Name

Radiation Technology, Inc.
108 Lake Denmark Road
Rockaway Township
Morris County

Site Description

This is an active 265-acre manufacturing and production site located in a rural area just east of Lake Denmark and the Wharton and Northern Railway line. The company is involved in the radiation sterilization of food and medical products as well as the impregnation and irradiation of hardwood flooring.

Environmental Impact

Improper disposal of wastes either through direct dumping or by burial of drums containing hazardous waste has caused ground water contamination. Sampling has indicated the presence of halogenated solvents which pose a threat to nearby streams and Lake Denmark as well as to the ground water. Two on-site wells were condemned by the Rockaway Township Health Department in 1981.

Status

The New Jersey Department of Environmental Protection (NJDEP) issued several directives in 1981 instructing the company to remedy the situation. When the company did not comply, the NJDEP filed a Verified Complaint and Order to Show Cause in March, 1982.

On July 7, 1983 a Civil Action Consent Order was signed by the Superior Court of New Jersey providing for the installation of monitoring wells on site and preparation of a site evaluation report. Both the company and the NJDEP were to take ground water samples from these wells. The NJDEP was authorized to prepare a site evaluation report based on an analysis of these samples and to submit it both to the court and to the company, indicating whether it felt the company was responsible, jointly responsible or not responsible for water pollution in this area.

The NJDEP report was submitted on August 27, 1984 stating the Department's conclusion that the company is exclusively responsible. According to the provisions of the Consent Order, Radiation Technology, Inc. hired their own consultant to evaluate existing data. The consultant's report was submitted to NJDEP and is presently under review.

Of 97 New Jersey sites on the National Priorities List, Radiation Technology, Inc. is ranked 50th.
Site Name

Radium Contamination
Glen Ridge
Essex County

Site Description

The Radium Contamination site in Glen Ridge was detected during the course of a United States Environmental Protection Agency (USEPA) aerial gamma radiation survey of 12 square miles in Essex County surrounding the City of Orange. This survey revealed several areas of elevated gamma radiation, which suggested the possibility of abnormal radium concentrations. In July 1983 the New Jersey Department of Environmental Protection (NJDEP) began surveying Glen Ridge and identified properties that required further investigations. Subsequently, in the fall of 1983 NJDEP found a limited number of residences where the soil around and/or beneath the foundations is contaminated with low levels of radioactive material. Presently the Glen Ridge site encompasses Barrow's Athletic Field and approximately 21 residential properties. In order to establish the boundaries of the contamination approximately 178 homes were sampled within the study area, as well as 80 residences outside of the identified study sectors. Data from these homes were provided to the Centers for Disease Control (CDC) for evaluation.

It is alleged that a former radium processing facility in Orange is the source of the radiological contamination, which resulted from off-site disposal of processing waste. The radon gas exists in landfill soil which is at various locations in Essex County. (See Radium Contamination, Montclair/West Orange site description.)

Environmental Impact

Radioactive material in soil can result in a buildup of unacceptable levels of radon gas and radon progeny (polonium, lead, and bismuth produced by decaying radon gas) inside houses built on the contaminated soil because the house acts as a trap for the gas.

Elevated levels of radon gas and/or radon progeny, which are carcinogenic agents, were detected in Barrow's Athletic Field and in several residences. Analytical results indicated that the radon levels in some residences exceeded the allowable standards for radiation workers. There were some properties which had normal indoor radon levels but had elevated outdoor gamma levels as a result of soil contamination. Of the 178 residences within the defined study sectors, 15 were found to have radon progeny contamination requiring remedial action. Six of these residences required temporary remedial action to reduce the radon progeny levels. According to CDC's methodology, the people in the affected homes would not be exposed to more than the permissible annual dose of gamma radiation.

USEPA and CDC concluded that it would not be necessary to issue a general recommendation to limit gardening in the study area. However, USEPA and NJDEP recommended that the limited number of residents with gardens directly in a contaminated area refrain from gardening in these areas in order to minimize the intake of radium from consumption of vegetables grown in this soil. Homeowners were advised to contact USEPA or NJDEP for specific gardening recommendations.
Status

In December 1983, a task force representing state and federal agencies convened to develop a remedial action plan and a supplemental monitoring plan to further define the scope of the problem. The task force included representatives of USEPA, the United States Department of Health and Human Services, CDC, NJDEP, and the New Jersey Department of Health. The remedial action plan involved emergency installation of ventilation systems in those homes with the highest indoor levels of radon gas, expanded sampling of indoor radon levels in homes surrounding the known contaminated area, and expanded radiation surveys to delineate the extent of soil contamination.

At the request of NJDEP, USEPA authorized $2 million for emergency remedial action through December 1984. By May 1984, a field investigation plan was initiated by USEPA's Environmental Services Division. All homes within the Glen Ridge study area were sampled for radon progeny contamination. These homeowners were sent written notification of the sampling results.

Remediation measures have been implemented in six homes. In some residences emergency remedial efforts were taken to reduce the high levels of radon and/or radon progeny. As of July 1984, USEPA's contractor completed the installation of fresh air ventilation systems in all six homes with the highest levels of radon progeny contamination. These remedial measures successfully reduced the levels of radon and radon progeny to acceptable levels in all of these homes.

A pilot program has been developed to determine the feasibility and cost of soil removal. The program's objectives are to demonstrate that techniques for removal of contaminated soil are effective and will reduce radon and radon progeny levels in residences, to determine the engineering feasibility of soil removal given the various types of housing construction and locations of contamination, and to estimate the cost of soil removal at representative properties. Monitoring wells have been installed to observe the potential impact of contaminated soil on regional ground water quality.

Of 97 New Jersey sites on the National Priorities List, the Radium Contamination in Glen Ridge is ranked 29th.

10/84
Site Name
Radium Contamination
Montclair/West Orange
Essex County

Site Description

The Radium Contamination site in Montclair/West Orange was detected during the course of a United States Environmental Protection Agency (USEPA) aerial gamma radiation survey of 12 square miles in Essex County surrounding the City of Orange. This survey revealed several areas of elevated gamma radiation, which suggested the possibility of abnormal radium concentrations. In July 1983, the New Jersey Department of Environmental Protection (NJDEP) began surveying Montclair/West Orange and found properties that required further investigations. Subsequently, in the fall of 1983, NJDEP identified a limited number of residences where the soil around and/or beneath the foundations is contaminated with low levels of radioactive material. Presently the Montclair/West Orange site encompasses approximately 54 residential properties. In order to establish the boundaries of the contamination approximately 143 homes were sampled within the study area, as well as 80 residences outside of the identified study sectors. Data from these homes were provided to the Centers for Disease Control (CDC) for evaluation.

It is alleged that a former radium processing facility in Orange is the source of the radiological contamination, which resulted from off-site disposal of processing waste. The radon gas exists in landfill soil which is at various locations in Essex County. (See Radium Contamination, Glen Ridge site description.)

Environmental Impact

Radioactive material in soil can result in a buildup of unacceptable levels of radon gas and radon progeny (polonium, lead, and bismuth produced by decaying radon gas) inside houses built on the contaminated soil because the house acts as a trap for the gas.

Elevated levels of radon gas and/or radon progeny, which are carcinogenic agents, were detected in several residences. Analytical results indicated that the radon levels in some residences exceeded the allowable standards for radiation workers. There were some properties which had normal indoor radon levels but had elevated outdoor gamma levels as a result of soil contamination. Of the 143 residences within the defined study sectors, a total of 26 were found to have radon progeny contamination requiring remedial action. Sixteen of these residences required temporary remedial action to reduce the radon progeny levels. According to CDC's methodology, the people in the affected homes would not be exposed to more than the permissible annual dose of gamma radiation.

USEPA and CDC concluded that it would not be necessary to issue a general recommendation to limit gardening in the study area. However, USEPA and NJDEP recommended that the limited number of residents with gardens directly in a contaminated area refrain from gardening in these areas in order to minimize the intake of radium from consumption of vegetables grown in this soil. Homeowners were advised to contact USEPA or NJDEP for specific gardening recommendations.
Status

In December 1983, a task force representing state and federal agencies convened to develop a remedial action plan and a supplemental monitoring plan to further define the scope of the problem. The task force included representatives of USEPA, the United States Department of Health and Human Services, CDC, NJDEP, and the New Jersey Department of Health. The remedial action plan involved emergency installation of ventilation systems in those homes with the highest indoor levels of radon gas, expanded sampling of indoor radon levels in homes surrounding the known contaminated area, and expanded radiation surveys to delineate the extent of soil contamination.

At the request of NJDEP, USEPA authorized $2 million for emergency remedial action through December 1984. By May 1984, a field investigation plan was initiated by USEPA's Environmental Services Division. All homes within the Glen Ridge study area were sampled for radon progeny contamination. These homeowners were sent written notification of the sampling results.

Remediation measures have been implemented in 16 homes. In some residences emergency remedial efforts were taken to reduce the high levels of radon and/or radon progeny. As of July 1984, USEPA's contractor completed the installation of fresh air ventilation systems in all sixteen homes with the highest levels of radon progeny contamination. These remedial measures successfully reduced the levels of radon and radon progeny to acceptable levels in all of these homes.

A pilot program has been developed to determine the feasibility and cost of soil removal. The program's objectives are to demonstrate that techniques for removal of contaminated soil are effective and will reduce radon and radon progeny levels in residences, to determine the engineering feasibility of soil removal given the various types of housing construction and locations of contamination, and to estimate the cost of soil removal at representative properties. Monitoring wells have been installed to observe the potential impact of contaminated soil on regional ground water quality.

Of 97 New Jersey sites on the National Priorities List, the Radium Contamination in Montclair/West Orange is ranked 30th.
Site Name

Reich Farm
Dover Township
Ocean County

Site Description

The Reich Farm site is located on a five-acre parcel of land in the Pleasant Plains section of Dover Township. The area is predominantly rural with suburban developments. Drums of hazardous substances, including organic solvent wash water, chemical sludges, and residual chemicals, were improperly stored and illegally disposed of at the site causing ground water contamination. In addition, 50 drums of hazardous substances were discovered buried on site contributing to ground water contamination. All buried and surface drums (approximately 4,500) have been removed from the site and properly disposed of by the generator. In addition, the generator removed and properly disposed of the contaminated soil.

Environmental Impact

Reich Farm overlies the Cohansy Aquifer, a major source of potable water for Dover Township and the surrounding area. It is estimated that there may be contamination of one square mile of ground water and overlying soil formations. The possibility exists that local water company production wells could be contaminated in the future.

Approximately 150 private wells were monitored and condemned due to contamination. The affected residences were connected to the municipal water system.

Status

The New Jersey Department of Environmental Protection (NJDEP) and the waste generator reached a Settlement Agreement in 1977 wherein the generator agreed to pay $60,000 for a remedial investigation and, if necessary, to treat the water in this Dover Township area. In April 1982, a Notice to Make Payment was issued to the generator to provide funds for NJDEP to perform a hydrogeological investigation consistent with the 1977 funding agreement. It was decided between the regulatory agencies, that the United States Environmental Protection Agency (USEPA) would execute a joint agency contract to have a feasibility study conducted, provided that the settlement funds are utilized properly. In January 1984, NJDEP presented USEPA with documentation of the expenditure of court ordered funds on investigations related to this site. USEPA is reviewing the data and documentation of the site investigations.

Of 97 New Jersey sites on the National Priorities List, Reich Farm is ranked 17th.
Site Name

Renora, Inc.
83 S. Main Street
Edison Township
Middlesex County

Site Description

Renora, Inc. was a hazardous waste collector/hauler operating from 1977 to 1980. The site of its operations is bordered on one side by the Mill Creek and the other sides by the New Jersey Turnpike South and the Conrail railroad tracks. Presently on site are as many as 1,100 containers (55-gallon and 5-gallon) and 18 tankers and tanks containing solvents, resins, oils, greases and other hazardous substances. Some of the tanks, tankers and drums are deteriorating and leaking their contents onto the soil. Several ponds of hazardous materials have accumulated on site.

Environmental Impact

Soil at the site has been contaminated by leakage. It is suspected that area ground water may be contaminated. Ground water below this site probably discharges to Mill Brook.

Status

The facility's operation permit expired on April 30, 1979. The company has failed to comply with a New Jersey Department of Environmental Protection (NJDEP) Order of August 1980 to remove all drums, tanks and other containers as well as contaminated soil.

An application for a Cooperative Agreement which would have included a surface cleanup of the site, was submitted to the United States Environmental Protection Agency (USEPA) by NJDEP in the summer of 1984. USEPA subsequently decided that the immediate threat posed to the environment was such that it warranted an Immediate Removal of the surface wastes. The responsible parties have agreed to perform the surface cleanup (which is currently underway), as well as periodic monitoring. NJDEP anticipates that the Cooperative Agreement will be signed following the Immediate Removal Actions and will now address any remaining contamination.

Of 97 New Jersey sites on the National Priorities List, Renora, Inc. is ranked 59th.
Site Description

This is an inactive facility formerly operated by a chemical supplier and manufacturer specializing in "hard to find" chemical compounds including aromatics and flavorings, as well as both organic and inorganic chemicals. When the site was inspected in 1980 by the New Jersey Department of Environmental Protection (NJDEP), there were approximately 100 drums of waste material, a bulk underground tank, and approximately 250 drums containing solvents and other organic materials. The plant began operations in 1972 and closed in 1983 after a fire in a dumpster prompted an investigation which revealed numerous violations of New Jersey hazardous waste regulations.

The site is bordered by the Passaic River to the east and covers approximately one acre in a densely populated residential/commercial/industrial area.

Environmental Impact

Of primary concern was the potential danger of an uncontrolled fire which could cause discharges of toxic fumes and vapors, thereby affecting homes, businesses and schools within a few hundred feet of the site. The current concerns at the site focus on direct contact with the residual materials remaining in the building, as well as potential soil and ground water contamination.

Status

Emergency response measures which included identifying, segregating, repacking and disposing of on-site materials, were conducted in 1983. In February 1984 the most toxic and highly reactive materials were removed and in July 1984 nearly 230 pounds of radioactive materials were removed. In February 1985 NJDEP undertook the third stage of the removal of hazardous materials from the site. This included the removal of liquids from underground storage tanks and reactor vessels as well as the removal of remaining drummed wastes and laboratory chemicals. This removal will be followed by a long-term remedial action program which will include final decontamination of the facility and studies to investigate possible soil and ground water contamination.
Site Name

Ringwood Mines and Landfill
Ringwood Borough
Passaic County

Site Description

The Ringwood Mines and Landfill are located in a rural area of northern Passaic County. The site is approximately one-half mile wide and two miles long, and consists of a series of abandoned mine shafts, pits, inactive landfills and open dumps. There are two mine areas; Cannon and Peter's Mines. Between 1963 and 1974, shafts and pits of both mines were filled with an unknown quantity of waste from an automobile manufacturer and other industries. Peter's Mine has been filled with paint sludges, solvents and scrap metal. Several drums have been observed in the Cannon Mine.

Two of the streams which supply the Wanaque Reservoir originate in the immediate vicinity of the mines. In addition, Ringwood Boro has a total of 10 wells and a potable spring in the area. The spring is less than 1/2-mile from the site and the wells, ranging from 70 to 417 feet in depth, are within two miles of the site.

Environmental Impact

The primary health concern associated with Ringwood Mines is the potential contamination of existing and/or future water supplies. Ground water data for Peter's Mine indicate the presence of low-level volatile organic contamination. Surface water analysis has indicated contamination in the municipal landfill leachate and in Mine Brook. Analytical results revealed high concentrations of solvents in ground water and high concentrations of heavy metals in surface water.

Heavy leachate streams flowing from the site were evident during an inspection conducted by the New Jersey Department of Environmental Protection in November, 1979. These streams pose an imminent environmental hazard since private and public water supplies from both surface and ground water sources are within 1/2-mile of the site. Leachate from the site flows across a parking lot and several roads before reaching the stream. Vegetation that has been in contact with the leachate has died.

Status

On March 16, 1984 the United States Environmental Protection Agency (USEPA) entered into an Administrative Consent Order (ACO) with Ford International Services Inc.. The ACO mandates that Ford conduct the remedial investigation to determine the extent of contamination at the Ringwood site. Subsequently, Ford has contracted with a consultant for assistance in complying with the ACO. The remedial investigation is currently underway.

Of 97 New Jersey sites on the National Priorities List, the Ringwood Mines and Landfill site is ranked 20th.
Site Name
Rockaway Borough Well Field
Rockaway Borough
Morris County

Site Description
The Rockaway Borough wells serve approximately 10,000 people. The ground water from which the well water is drawn is the sole source of potable water for borough residents. The three contaminated municipal wells are located in the downtown area of the borough within 1,200 feet of the Rockaway River. The general area under investigation extends from the well field to Interstate Highway 80. It contains the well field itself, a 40-acre industrial area, residences, some vacant land, public streets and other related urban features, an old borough dump and a small dump within the industrial area.

Environmental Impact
Three municipal wells in the borough were contaminated with volatile organics, including trichloroethylene (TCE) and tetrachloroethylene (PCE), from an unknown source. Currently there is no evidence of surface water contamination, but such a potential exists due to the close proximity of the wells to the Rockaway River.

Status
An activated carbon filtration system which purifies the contaminated water was installed in July 1981 and is being maintained at the expense of the borough. Monitoring and treatment will continue. Enforcement strategy for responsible parties is being formulated. However, additional data is needed in order to initiate action.

In August 1983 the United States Environmental Protection Agency (USEPA) drafted a Remedial Action Master Plan (RAMP) and submitted it to the New Jersey Department of Environmental Protection (NJDEP) for review. The NJDEP and USEPA signed a Cooperative Agreement on January 9, 1984 to commit $330,000 for a Remedial Investigation/Feasibility Study (RI/FS). A contractor for the RI/FS will be selected under a Term Feasibility contract. A Request for Proposals was issued in September 1984 and a contractor has been tentatively selected pending further review and approval by NJDEP.

Of 97 New Jersey sites on the National Priorities List, the Rockaway Borough Well Field is ranked 53rd.
Rockaway Township Wells
Rockaway Township
Morris County

Site Description

Rockaway Township has a population of approximately 20,000. The Township water supply system serves 12,000 of these residents and consists of three pumping wells (numbers 4, 6 and 7) located in a wetlands region on the northeast side of Green Pond Road. In November, 1979 trichloroethylene (TCE) was detected in all three wells at levels causing concern for public health. Despite efforts to eliminate it, contamination worsened. In October, 1980 di-isopropyl ether and methyl tertiary butyl ether were detected in well #7 at levels of 100 parts per billion (ppb) and 40 ppb, respectively. These results forced the township to declare a water emergency and discontinue use of all three wells.

Investigation determined that several sources were contributing to the contamination of these wells. A Shell Oil Company gasoline station approximately 1,100 feet from the well field was confirmed as one source. In 1980 the owners, in conjunction with the Township, provided funds for the installation of a treatment system consisting of an air stripping unit and an activated carbon filtration unit to treat the contaminated water and thus allow the Township to resume use of this supply.

Environmental Impact

The significant levels of toxic organics found in the Rockaway Township wells have raised concern about its safety as a supply of potable water. Moreover, the Township wellfield draws from the Valley Fill Aquifer, a sole source aquifer which represents the only supply within the Township capable of meeting the community's water needs. Water-bearing zones in the surrounding fractured bedrock formations are very low-yielding.

Status

As noted above, a treatment system consisting of an air stripping unit and an activated carbon filtration unit was installed in 1980 to remove volatile organic contaminants from the water supply.

The New Jersey Department of Environmental Protection (NJDEP) has instituted a groundwater sampling program and prepared a hydrogeologic assessment of the site. Several industries in the area have been found to be operating in violation of the New Jersey Water Pollution Control Act and some are potential responsible parties. All potential contaminant sources as well as remedial action alternatives will be investigated during the Remedial Investigation/Feasibility Study to be conducted under the supervision of the NJDEP.

Of 97 New Jersey sites on the National Priorities List, the Rockaway Township Wells site is ranked 96th.
Site Name

Rocky Hill Municipal Well
Rocky Hill Borough
Somerset County

Site Description

The Rocky Hill well field is a two-acre tract of land located to the east of Route 206, just south of Route 518 (Washington Street). The wellfield is bounded on the north by residences that front on Washington Street and on the west by a commercial center that fronts on Route 206. To the east lies a town house complex and undeveloped fields, while a clearing (formerly an aircraft landing strip) is to the southeast. Water samples analyses of the Rocky Hill municipal well have shown contamination by various volatile organics, most notably trichloroethylene (TCE) and tetrachloroethylene. The origin of the contamination is presently unknown, but there are several industrial and commercial properties in the vicinity that are possible sources.

Environmental Impact

This well supplies drinking water for approximately 1,000 residents of the Borough of Rocky Hill. The aquifer of concern, the Brunswick Formation, is used as a source of potable and process water, as well as for irrigation.

Status

On November 14, 1979 the well was closed due to elevated levels of TCE. Eventually these levels declined and the well was reopened in July, 1981 only to be shut down for a second time in January, 1982 when TCE levels again increased. During these interim closures water was supplied to the Borough by the Elizabethtown Water Company. The installation of two air stripping units which reduce the TCE concentrations to acceptable levels has since been completed and the well was reopened in July, 1983.

In May, 1983 the New Jersey Department of Environmental Protection (NJDEP) began investigations to determine the sources of contamination and the direction of ground water flow. NJDEP installed one monitoring well to be used in conjunction with existing domestic and production wells for this purpose. A Cooperative Agreement between NJDEP and the United States Environmental Protection Agency (USEPA) to perform a Remedial Investigation/Feasibility Study (RI/FS) at a total cost of $500,000 was approved in October 1984. The projected starting date for the RI/FS is early 1985. Additionally an Initial Remedial Measure, which will entail connecting the affected residents to an alternative water supply, will be evaluated.

Of 97 New Jersey sites on the National Priorities List, the Rocky Hill Municipal Well is ranked 66th.

10/84
Site Name

Roebing Steel Company
Florence Township (Roebing)
Burlington County

Site Description

The Roebing Steel site is a 200-acre partially abandoned industrial facility in Florence Township. It is bordered on the north by the Delaware River, on the east by Crafts Creek, and on the south and west by the residential community of Roebing. The site was operated as a steel mill from 1906 until 1981 when the John A. Roebing Steel Company (JARSCO) ceased operation. Presently, various tenants, the largest of which is Roebing Wire Company, lease portions of the site. Because of a loan default, the U.S. Economic Development Administration is attempting to gain control of the site. There are numerous sources of hazardous materials and wastes on site including two inactive sludge lagoons, an active waste water treatment plant, a steel furnace slag, bag house emission dust, electrical transformers containing polychlorinated biphenols (PCBs), several truck trailers with unknown contents, oil-soaked soils, storage tanks and drums containing oil and other potentially hazardous materials, a deteriorating oil tank truck trailer, and an abandoned landfill. In June 1979, the New Jersey Department of Environmental Protection (NJDEP) and the Burlington County Health Department discovered 600 55-gallon drums containing wastes.

Environmental Impact

Due to the close proximity of the Delaware River and the evidence of spillage, surface runoff to the river is a concern. Ground water in the area is approximately ten feet below the surface. Homes in Roebing and much of the surrounding area rely on ground water as their potable source. There is concern that the ground water may be contaminated.

Status

In October 1979, NJDEP approved a waste water treatment plant for JARSCO which required the installation and sampling of monitoring wells around the unlined sludge lagoon. During the following month, NJDEP issued a Notice of Violation to JARSCO which mandated the removal of waste oil containers, as well as their spilled contents. Consequently, 4,500 gallons of oil were removed in November 1979. In May 1981, NJDEP issued a Notice of Prosecution which required the company to remove the drums and other stored hazardous wastes and by August 1981 JARSCO had removed 20,000 gallons of waste oil and 60 cubic yards of contaminated soil. During a NJDEP inspection in December 1981, volatile organics and heavy metals were found in the sludge. In June 1982, NJDEP required the installation of three ground water monitoring wells. Also in June 1982, the United States Environmental Protection Agency (USEPA) issued a Complaint and Compliance Order to JARSCO which directed them to discontinue storage of bag house dust, remove spilled dust and contaminated soil, protect the pile from precipitation, and address the issue of contaminant migration.

On July 11, 1984 NJDEP entered into a contract with USEPA to commit $500,000 for a Remedial Investigation/Feasibility Study (RI/FS). However, the possibility of the responsible parties assuming the RI/FS and the cleanup is still being pursued by NJDEP and USEPA. Presently Roebing Wire Company is filing for bankruptcy under Chapter 11.

Of 97 New Jersey sites on the National Priorities List, the Roebing Steel site is ranked 56th.

10/84
Site Name
Roosevelt Drive-In Theater
Route 440
Jersey City
Hudson County

Site Description
This is a segment of the Daylin/Grace site which consists of approximately 34 acres bounded on the southeast by New Jersey Route 440, on the southwest by several commercial and industrial operations, on the northwest by a wooden bulkhead on the Hackensack River and on the northeast by the Jersey City Sewage Treatment Plant. The now-abandoned drive-in theater occupies most of the western portion of the site. The site was created by the dumping of secondary residues from a now-inactive chromium ore processing facility of the Mutual Chemical Company of America which is located across Route 440 from the site. The plant, in operation from about 1905 to 1954, generated an estimated 969,500 tons of secondary residue which was disposed of in the tidal flats of the Hackensack River. Portions of the site contain chromium residue as deep as 30 feet below the surface.

Mutual Chemical Company was acquired by Allied Corporation in 1954 after dichromate production operations had ceased at the plant. That same year the property was conveyed to Amy Joy Realty Corporation. Amy Joy and successor companies built the Roosevelt Drive-In in 1955. Title to the site eventually passed to the current owner, Daylin, Inc., a wholly-owned subsidiary of W.R. Grace Company.

Environmental Impact
Several investigations have documented elevated concentrations of total chromium and hexavalent chromium in the residue contained on the site, in ground water under the site and in surface waters discharging from the site via two drainage channels. Chromium residue remains at the surface on most of the western half of the site.

It is estimated that the site discharges 55 to 400 pounds of hexavalent chromium to the Hackensack River per year. This represents one of over 100 point sources within the basin and water quality data indicate that the river is extremely stressed. Permitted point sources contributing to the discharge of dissolved chromium to the river include the Jersey City Sewage Treatment Plant (approximately 2400 pounds per year) and the Kearny Sewage Treatment Plant (approximately 7300 pounds per year).

Status
In April, 1983 the New Jersey Department of Environmental Protection (NJDEP) issued a Directive Letter which outlined initial measures required to eliminate the opportunity for public exposure to chromium-contaminated materials and to develop a plan to delineate the extent of contamination. An investigation of the site was conducted and a report was submitted to the NJDEP on April 10, 1984. This represents the initial phase of remedial action and will be followed by a feasibility study to determine and evaluate alternative courses of action to remedy the problems at the site.

4/85
Saturn Chemical
Lawrence Township
Mercer County

Site Description

The Saturn Chemical site located at 1600 New York Avenue in Lawrence Township is in an industrial corridor that is bordered to the south by Route 1 and to the north by residences. The Delaware and Raritan (D&R) Canal is the closest surface water to the site and it borders this property on the southeast. The Assunpink Creek is nearby and is located 500 feet away, also in a southeasterly direction.

This chemical company produced paint and styrene resins and stored chemicals needed for this process on site. On August 21, 1981 a chemical fire destroyed this facility. Thousands of gallons of contaminated water were used while extinguishing the fire. Runoff was observed entering storm drains, the D&R Canal and the Assunpink Creek. It has been estimated that approximately 195 tons of dry material and 25,000 gallons of chemicals were destroyed in the fire.

Environmental Impact

The tremendous amount of contaminated runoff generated during the fire has raised concern for ground water, surface water and soil contamination. Five monitoring wells have been installed on site and a consultant for Saturn Chemical has sampled them on three different occasions. The results indicate that the ground water on site is contaminated with heavy metals and volatile organics. On July 25, 1985 sampling of soil and ground water was conducted by the New Jersey Department of Environmental Protection (NJDEP). Results of this round of sampling are currently being reviewed by NJDEP.

Status

The condition of this site after the fire and the slow progress made by Saturn Chemical in remediating the site has resulted in the issuance of three Directive Letters by NJDEP; two by the Division of Water Resources and one by the Division of Waste Management. In general, the directives ordered the company owner to identify and delineate ground water contamination, install a ground water decontamination system, and to eliminate sources of contamination. Limited compliance to these orders resulted in the submission of the site by NJDEP on July 9, 1985 to the United States Environmental Protection Agency, Region II, for Superfund consideration.

Saturn Chemical is currently undergoing a review by the NJDEP pursuant to the Environmental Cleanup Responsibility Act (ECRA). ECRA requires property to be properly cleaned up prior to any transaction involving the change of ownership.
Site Name

Sayreville Landfill
Jernee Mill Road
Sayreville Borough
Middlesex County

Site Description

This is an inactive municipal landfill located in a moderately industrialized section of Sayreville. Thirty buried drums were located during an excavation project conducted jointly by the New Jersey Departments of Environmental Protection and Law and Public Safety. The drums were sampled and found to contain paraethyl toluene, pentachlorophenol, chloroform, paramethylstyrene, methylbromide, and pesticides. They were subsequently removed and disposed of by the generators. It is estimated that several hundred drums of chemical waste remain buried in the landfill.

Environmental Impact

Part of the landfill is located in a wetland area adjoining the South River. The Sayreville and Perth Amboy well fields which serve over 65,000 people are located within a three-mile radius of the site.

Status

The Division of Criminal Justice of the New Jersey Department of Law and Public Safety indicted two persons in June 1981 in connection with the dumping of hazardous wastes at the Sayreville Landfill. The NJDEP is currently conducting investigations to identify other parties who may be responsible for disposal of hazardous wastes on site.

Of 97 New Jersey sites on the National Priorities List, the Sayreville Landfill is ranked 70th.
Site Name

Sayreville Pesticide Dump
Horseshoe Road
Sayreville Borough
Middlesex County

Site Description

This one-acre site of buried and exposed drums is located on the west side of Horseshoe Road. The site is bordered to the south by a wooded area and to the southwest by two steel plants. A small patch of woods, the Middlesex County Sewage Authority line and a swamp, which leads to the Raritan River, border the site to the west and north. The Atlantic Development Corporation is also located north of this site.

There are approximately 200 drums visible, with most being rusted through and empty. In April, 1981 the New Jersey Department of Environmental Protection (NJDEP) sampled the contents of some drums and found the presence of hazardous materials.

Environmental Impact

Surface water and ground water flow is to the north towards the Raritan River. There is visible contamination at the foot of a fill area and runoff is collected in a small pond before discharge to the Raritan River. The integrity of the visible drums and unknown number of buried drums present the potential for ground water contamination. Surface water and soil contamination is apparent from inspections.

Status

A Feasibility Study is planned for the site. The Sayreville Pesticide Dump site is included in the NJDEP's Management Plan for hazardous waste site cleanups and it will be addressed with State funds if necessary.
Site Name

Scientific Chemical Processing, Inc. (SCP)
Carlstadt Borough
Bergen County

Site Description

Scientific Chemical Processing Inc. is an inactive waste processing facility situated on a 6-acre tract of land on Paterson Plank Road directly across from the Meadowland Sports Complex. The company was formerly involved in the recovery and recycling of various by-product and waste solvents and other chemicals. The site is bordered on the northeast by Peach Island Creek which joins Berry's Creek, a tributary of the Hackensack River, and is located within a coastal wetlands management area. Ground water is found near the surface. Currently about 375,000 gallons of hazardous substances are stored on site in forty-four tanks ranging in capacity from 3,000 to 20,000 gallons; fifteen 2,000 to 7,000 gallon tank trailers; and numerous 55-gallon drums and other containers. These materials are broadly classified as crude oils, fuel oils, paint sludges, solvent residues, water-latex mixtures, phenolic resins and other unidentified chemicals.

Environmental Impact

An ongoing investigation of reported hazardous waste spills and suspected violations of governmental regulations revealed extensive soil contamination and suspected ground water contamination. This indicated frequent spillage due to poor housekeeping procedures and an inadequate maintenance program. Some of the drums are rusted and leaking and a product-sheen is visible in rainwater runoff. A petroleum-like discharge was found leaching from the banks of Peach Island Creek while contaminated surface water flows to the creek as well. Direct discharges of hazardous substances to Peach Island Creek and the municipal sewer system were also known to occur. Local surface water bodies are used for recreation and industrial water supplies and could be affected by surface water contamination. Air quality is threatened by volatile organic solvents and there is a danger of fire and explosion. Extensive soil contamination at the site could be aggravated as the integrity of the vessels continues to degrade. The aquifer in the area is shallow and ground water contamination is strongly suspected.

Status

An air, water, and product sampling program was initiated by the New Jersey Department of Environmental Protection (NJDEP) following a January 1979 hazardous waste spill. Test results revealed hazardous substances in concentrations considered to be dangerous to the local population and environment. In August 1980 NJDEP obtained a Court Order halting operations at the site. Enforcement actions in 1983 resulted in Court Orders for the responsible parties to initiate a cleanup. In February 1984 NJDEP conducted a detailed site inspection and assessment. Several meetings were held throughout the spring and summer of 1984 between NJDEP, the responsible parties, and the
contractors involved, to discuss issues related to the site's cleanup. Inmar Associates, the property owners who leased the site to SCP, have submitted a plan for the surface removal of the storage tanks and materials. NJDEP approved the plan and Inmar initiated the surface removal in the fall of 1984.

Of 97 New Jersey sites on the National Priorities List, the Scientific Chemical Processing site is ranked 13th.

10/84
Site Description

Scientific Chemical Processing (Newark) is an inactive hazardous waste processing facility encompassing 3.7 acres (see also SCP Carlstadt). Former operations consisted of the recovery and recycling of waste solvents, fuels and other hazardous wastes. Presently, an unknown quantity of hazardous material is stored within the warehouse and process buildings and on the property surrounding these structures. Approximate estimates of these materials include: 3,700 55-gallon drums, 10 bulk liquid tankers (ranging in size from 5,000 to 7,000 gallons) 17 steel stationary storage tanks (from 8,000 to 20,000 gallons), 10 process tanks (ranging in size from 1,000 to 10,000 gallons), and 4,000 laboratory chemical reagent and process sample bottles (plastic, glass and metal). Several hazardous chemicals are suspected to be contained in the drums, tanks and laboratory bottles. These include: toluene, ethylacetate, trichloroethylene, isopropanol, methanol, perchloroethylene, polychlorinated biphenyls, l-1-l-trichlorethane, used heptane with fats, nitrobenzene, polyvinyl alcohol and 1,2-dichloroethane. All of the materials on site are improperly stored. The drums are deteriorating and haphazardly stacked. Tankers are leaking and/or corroding. Waste materials are not properly segregated and there is no secondary containment for spill control and prevention.

Environmental Impact

Until a detailed specific staging and sampling program is conducted, the full extent of environmental impact cannot be accurately determined. However, the present condition of this site poses a serious threat to the immediate environment. Specifically, the probability of ground water and soil contamination is very high. Of more critical concern is the close proximity of the deteriorating drums that are suspected to contain flammable, explosive and/or corrosive materials. (Because many of these waste types are incompatible there is a high probability of an explosion and/or fire.)

Status

On February 27, 1984, the New Jersey Department of Environmental Protection (NJDEP) conducted a detailed site inspection and assessment. A Court hearing to present issues regarding the site cleanup was held in June 1984. The Court ordered that cleanup plans be submitted to the Department by July 1984. The contractor originally hired to perform sampling and analysis at the site was removed and a new contractor engaged in order to expedite the work. 850 gallons of trichlorethane have been removed from the site. Many of the empty drums have been removed as well. Bulking of the fuel retains and segregation of lab reagents has been completed. Initial activities centered on the stabilization of the site and the sampling and identification of immediate hazards. NJDEP has drafted a response to the property owner's revised cleanup proposal of September, 1984. A key component of this response is a planned work schedule which identifies the priorities and scheduled deadline for each phase of the surface removal.

NJDEP has proposed Scientific Chemical Processing (Newark) for inclusion on the 1984 National Priorities List.
Site Name

Seaview Square Mall
(formerly M & T Delisa Landfill)
Ocean Township
Monmouth County

Site Descriptions

The Seaview Square Mall was constructed in 1976 and covers approximately 100 acres. The mall is atop a closed sanitary landfill comprised of 35 acres. M & T Delisa operated the landfill for about 30 years prior to its closure in 1975. There is documentation of municipal waste disposal. It is unknown if hazardous waste was also accepted by the landfill operators.

Although the mall itself is situated on clean fill, the parking lot is built on the redeposited landfill material. Construction over the former landfill required subsurface control and venting of methane gas to the atmosphere. It also required an underdrain system and an impermeable soil liner for collection of landfill leachate.

Environmental Impact

In June 1981, the United States Environmental Protection Agency (USEPA) Field Investigation Team (FIT) analyzed surface water and soil near the site which revealed contamination by polynuclear hydrocarbons and metals. In March of the same year the FIT sampled private wells within a 1/2-mile radius of the site and did not find contamination.

The leachate collection system runs along the perimeter of the parking lot. It is suspected that leachate and storm water infiltration enter the storm sewers under the parking lot and drain into existing detention basins. Leachate streams and/or seeps were observed flowing into the nearby stream during the course of site evaluations by the New Jersey Department of Environmental Protection (NJDEP) and the USEPA. This stream empties into Deal Lake which is less than one mile from the site. Deal Lake is used for recreational purposes and could be impacted by landfill contaminants. Private drinking wells near the site may be threatened in the future by contaminant migration.

Landfill gases have been detected migrating toward the mall but appropriate measures were taken in 1983 to vent them. These gases have been tested for toxics and results indicate that they do not present a significant health impact to the public.

Status

A Landfill Disturbance Plan to excavate and redeposit landfill material for construction of a shopping mall was approved by NJDEP's Solid Waste Administration on June 11, 1975. The entire operation was completed by July, 1978.

The NJDEP and the USEPA enforcement teams held numerous meetings with the mall owner in late 1983 to discuss remedial investigations to identify the source(s) of hazardous substances. In November 1983 the mall owner executed a Federal Administrative Order to conduct the field investigations and lab analyses as required by USEPA. Pursuant to the Administrative Order, the field work for the remedial investigation was completed in April, 1984. The final report is presently being reviewed by NJDEP.

Of 97 New Jersey sites on the National Priorities List, Seaview Square Mall is ranked 90th.
Site Name
Sharkey Farms Landfill
Edwards Road
Parsippany-Troy Hills and
  East Hanover Townships
Morris County

Site Description

The Sharkey Farms Landfill is an inactive site which consists of five separate fill areas covering a total of approximately 150 acres. The two primary fill areas, north and south, are located in Parsippany-Troy Hills near the township's eastern border with Montville Township. The north fill area covers 40 acres and is an island completely surrounded by the Rockaway River. It contains an 80-foot mound of fill with an intermittent soil cover. The side slopes are very steep and contain several of leachate seeps and erosion gullies. The Rockaway River is also undercutting the landfill banks and exposing waste. The south fill area covers approximately 60 acres and includes the Parsippany-Troy Hills sewage treatment plant. During the expansion of the plant, excavated debris was redeposited on the south and north fill areas. This section has a fairly uniform soil cover which is supporting vegetation. Gas vents are located along the top of the mounded refuse, though many of these vents have been vandalized and are inoperative. Some erosion gullies exist on the south fill. The southwest fill area covers approximately 15 acres bordering the west side of Ridgedale Road, south of the Whippany River in East Hanover Township. The northwest fill area covers approximately 35 acres at the intersection of New Road and Route 280. This site is bounded by wetlands.

Sharkey Farms, Inc. began operating the site as a municipal landfill in 1945. By the time of its closure in September, 1972 it was serving about 200 trucks per day. Permit applications indicate that a wide variety of wastes were accepted by the landfill. Categories which could possibly include hazardous substances were commercial, industrial, institutional and chemical wastes as well as waste oils. No records of specific substances were found although generator records from the Ciba Geigy pharmaceutical company in Summit, New Jersey indicate that wastes consisting of approximately 750,000 pounds of halogenated and non-halogenated solvents were disposed of at the site during the period of 1962 to 1969. These substances included toluene, benzene, chloroform, methylene chloride and dichloroethylene.

Environmental Impact

Surface water and ground water contamination constitute the major environmental concerns at the site. As noted earlier, the landfill is situated in the meandering flood plains of the Rockaway and Whippany Rivers at the north western edge of the Hatfield Swamp. These two rivers join near the southeastern edge of the site and flow east less than one mile before reaching the Passaic River. The Passaic River is used as a source of potable water for the town of Little Falls, located approximately 15 miles downstream from the landfill. Ground water in the vicinity is used extensively for drinking water. The municipal well system for Parsippany-Troy Hills Township serves approximately 50,000 people with an average output of 5,000,000 gallons per day. The adjacent communities of Montville and East Hanover Townships each use approximately a million gallons per day. These two communities also have many residents that rely exclusively on private wells.
Status

A Cooperative Agreement was signed by the U.S. Environmental Protection Agency and the N.J. Department of Environmental Protection in December, 1983 providing $600,000 to conduct a Remedial Investigation/Feasibility Study at the site. A contract was awarded in August, 1984 and the study began in October, 1984. The final report is expected to be available in the winter of 1985.

Of 97 New Jersey sites on the National Priorities List, Sharkey Farms Landfill is ranked 33rd.

10/84
Site Name

Shieldalloy Corporation
Newfield Borough
Gloucester County

Site Description

Shieldalloy Corporation is located on 61.6 acres in the suburbs of Newfield. The Hudson Branch of the Maurice River lies within 300 feet of the site. East Boulevard borders the west side of Shieldalloy Corporation; the Pennsylvania Railway lies to the north. The company manufactures specialty alloys, particularly chromium. During the 1950s and 1960s, untreated wet air scrubber water was discharged to an on-site unlined percolation lagoon. The lagoon may be at least partly responsible for ground water contamination at this site. Also, a large kiln-waste pile is located 100 yards from the stream headwaters where runoff to the stream is evident.

Environmental Impact

A New Jersey Department of Environmental Protection (NJDEP) site investigation has revealed high levels of hexavalent and trivalent chromium in the ground water beneath the site. The residents in the area surrounding Shieldalloy Corporation are totally dependent upon ground water for their drinking supplies. Public wells serving both Newfield and Vineland are within two miles of Shieldalloy. In 1972, Newfield Borough Well #2A was condemned due to chromium contamination. The Maurice River, which is used for fishing and other recreational activities, is also within two miles of the known ground water contamination. Local surface waters could be threatened by runoff from the waste-pile and infiltration of contaminated ground water. The full extent of environmental impact is not known at this time.

Status

NJDEP has issued numerous directives to the Shieldalloy Corporation since 1970. Most recently, NJDEP issued a directive to the company to prepare a detailed proposal for improving ground water decontamination efforts. The proposal was submitted to NJDEP in May 1984. An Administrative Consent Order (ACO) was signed by Shieldalloy Corporation in July 1984 (effective in September 1984) and approved by the United States Environmental Protection Agency (USEPA). In the ACO, Shieldalloy has agreed to perform a Remedial Investigation/Feasibility Study, implement an approved remedial action plan and monitor and analyze ground water. Meanwhile, Shieldalloy is performing ground water decontamination to remove hexavalent and trivalent chromium by pumping ground water through an ion exchange plant.

Of 97 New Jersey sites on the National Priorities List, Shieldalloy Corporation is ranked 10th.
Site Name
Signo Trading International, Ltd.
140-175 Thomas Street
Newark City
Essex County

Site Description
This five-story brick warehouse is located in a densely populated residential/commercial/industrial area of the city. After a fire on April 11, 1983, it was discovered that 15,000-20,000 barrels of toxic chemicals, radioactive materials, explosives and polychlorinated biphenyls (PCBs) were stored illegally at the site. As a result of the owner's failure to meet several court-ordered deadlines to clear and detoxify the warehouse, the Superior Court of New Jersey placed the New Jersey Department of Environmental Protection (NJDEP) in charge of the cleanup project. An Essex County grand jury indicted five corporations and several officials of these companies for illegal storage of hazardous waste on October 18, 1984.

Environmental Impact
The potential danger lies in an uncontrolled fire hazard which could cause discharges of toxic fumes and vapors in an area where there are homes, businesses and schools within a few hundred feet of the site.

Status
When the NJDEP initiated the cleanup operation, it was found that thousands of the containers were mislabeled and required analysis before they could be moved. The most highly flammable and explosive of the materials known to be at the site were removed and disposed of first. In the process of implementing this phase of the project, the presence of PCBs was confirmed at the warehouse. Analysis confirmed that readings throughout the structure were many times higher than permitted under federal safety regulations and the building was scientifically vacuumed. Sampling was then conducted outside the building on the streets adjacent to the property. Eleven of the 12 samples produced no readings for PCBs. One sample indicated the presence of PCBs at a level of 98 parts per million (ppm). The sample was of a different composition than those taken within the warehouse, however, so it was not certain where the PCBs originated. Scientific vacuuming was then conducted along Murray Street between Mulberry and Goble Streets as a result of this finding. The full cleanup of the warehouse is underway and most of the flammable wastes have already been removed. All of the wastes remaining have been segregated, secured and repackaged for disposal.
Site Name

Signo Trading International
Signo II Site JANR Warehouse
Somerville Borough
Somerset County

Site Description

Signo Trading International occupies a portion of the 40,000 square foot warehouse at 40 Haynes Street. It is part of a small industrial complex and is located approximately 150 feet from residential dwellings. It contains palletized drums, cartons, boxes, loose containers of chemical waste and laboratory materials. An adjacent section of this building is occupied by a furniture storage company and is separated from Signo by a twelve foot crate wall. Liquid chemical waste has been seen leaking into that area.

The condition of the warehouse is very poor. There are no fire sprinkler systems and holes in the roof and windows allow water to come in contact with stored materials. Some chemical products are also stored on a mezzanine above the main area of chemical storage.

Environmental Impact

The nature of the different chemicals at the site pose significant danger of fire and explosion. Classes of materials include reactives, explosives, acids, oxidizers, radioactive material, compressed gases and controlled substances. Inspections by the New Jersey Department of Environmental Protection (NJDEP) confirmed a need for immediate actions to stabilize the site to protect public health and safety.

Status

Investigations at the site on September 21, 1984 began as a result of the action that occurred at the Signo I site in Newark. Subsequent inspections and site hazard appraisals resulted in the stabilization of the site during October and November 1984. Also in October, a twenty-four hour guard was employed and both the State Health Department and Federal Drug Commission embargoed all substances to and from the site. A Request for Proposals to contractors for cleanup has been completed. The bidder conference has been scheduled for March 21, 1985. Emergency Authorization Funds for stabilization in the amount of $200,000 has been obtained from the New Jersey Spill Compensation Fund. Negotiations with identified manufacturers to voluntarily remove materials is also continuing.

Investigations by the New Jersey Attorney General's Office, the Federal Bureau of Investigation's Drug Enforcement Agency and the Division of Criminal Investigation are in progress. The Signo II site is included in NJDEP's Management Plan for hazardous site cleanups and it will be addressed with more state funds if necessary.

3/85
Site Name

South Brunswick Landfill (Browning - Ferris Industries)
New Road
South Brunswick Township
Middlesex County

Site Description

The South Brunswick Landfill covers 65 acres in a rural/residential area on New Road. The site, now closed, consists of two mounds separated by a small stream which is a tributary of Heathcote Brook.

Environmental Impact

Sampling and analyses by the United States Environmental Protection Agency (USEPA) have revealed ground water and surface water contamination. Both private and public potable wells are located within three miles of the site.

Status

Following discovery of contamination at the site, the New Jersey Department of Environmental Protection (NJDEP) issued a closure order to the landfill in July, 1978. All dumping ceased at that time and in 1980 Browning-Ferris Industries (BFI), the owner and operator of the site, initiated discussions with the USEPA to determine proper closure procedures.

As a temporary measure, leachate seepage was impounded and treated. A hydro-geologic investigation was undertaken to determine the extent of ground water contamination and in April, 1981 BFI and the USEPA entered into a Consent Agreement to implement a comprehensive remedial action plan.

In accordance with this plan, a containment slurry wall was completed in December, 1983 and a perimeter leachate collection system was completed in the summer of 1984. In addition, air vents have been installed and a cap consisting of layers of clay, sand and top soil is currently being placed over the site. Construction of this cap is expected to be completed by January, 1985 and will be seeded in the spring of 1985.

Under a permit issued in 1982, BFI is presently discharging approximately 80,000 gallons of waste water per day to the Stony Brook Sewage Treatment Plant.

Of 97 New Jersey sites on the National Priorities List, the South Brunswick Landfill site is ranked 18th.

11/84
Site Name

South Plainfield Asbestos Dump
South Plainfield Borough
Middlesex County

Site Description

The South Plainfield Asbestos Dump encompasses 3.9 acres, approximately 100 feet north of the intersection of Elsie Street and New Market Avenue. The Lehigh Valley Railroad borders the northern portion of the site while residential properties border the southern portion. This site is located within a 100 year flood plain which is east of an unnamed tributary of Bound Brook. In 1971 the property owner began landfilling this area without a permit and it was later determined that asbestos was contained in the fill materials. The quantity of hazardous substances at this site is unknown. The landfill is not adequately covered and has no diversion system to contain wastes and prevent off-site migration of contaminants. Lack of security at the landfill permits easy access to trespassers.

Environmental Impact

Sample analyses have confirmed that soil at the dump is contaminated with asbestos. There is a possibility of ground water contamination since the fill material, composed of 1% asbestos, is located in the flood plain. Potential contamination of drinking water is a concern because the New Brunswick Aquifer is only 4 feet from the site. Approximately 400 people within a three-mile radius of the site depend on this aquifer for their potable water supply.

Bound Brook, located 300 feet downslope of the dump, flows into New Market Pond which is used for fishing and other recreation. There is a public park within 1,000 feet of the landfill.

Status

In March 1978 the New Jersey Department of Environmental Protection's (NJDEP) Bureau of Solid Waste Management issued an Administrative Order to the property owner to cover the asbestos material with two feet of backfill. In February 1981 NJDEP's Division of Water Resources notified the property owner of several violations and gave him 30 days to apply for a stream encroachment permit, remove all unauthorized fill, and stabilize the 100 year flood plain area under the guidance of the local Soil Conservation Service. However, during a NJDEP site inspection in July 1981 it was noted that the relocation of this large volume of contaminated material would probably create more of a health hazard than leaving it in place. Various solid waste violations were documented in an Administrative Court and Directive Order which was issued to the owner on September 4, 1981.

In 1984 NJDEP proposed the South Plainfield Asbestos Dump for the National Priorities List (NPL), however, the United States Environmental Protection Agency has not accepted this site for inclusion on the NPL. Site cleanup will be addressed with State funds if necessary.

10/84
Site Name

Southern Ocean Landfill, Inc.
Ocean Township
Ocean County

Site Description

Southern Ocean Landfill, Inc. is located on Route 532 in the heart of the Pinelands. This privately owned landfill was registered in 1970 and has been in operation since 1973. The surrounding area is predominantly undeveloped and used for commercial recreation and private residences. Previously the area was used for extractive mining. It is suspected that an unknown quantity of hazardous substances has been disposed of on site. The landfill has adequate cover and is secure from the general public.

Environmental Impact

Analyzed samples from monitoring wells indicate that the ground water is contaminated with benzene, chlorobenzene and tetrachloroethylene. Approximately 600 private wells which supply potable water to homes, mobile parks and campsites are within a three-mile radius of the landfill. Primary concern is for migration of contamination into the Cohansey Aquifer which is one of the largest sources of fresh water in New Jersey.

Long Beach Creek flows across the proposed landfill expansion area and into Forked River which is 0.3 mile north of the site. A boyscout camp located within 1.5 miles of the landfill uses Long Beach Creek for canoeing and other recreation.

Status

In August 1981 the New Jersey Department of Environmental Protection (NJDEP) ordered Southern Ocean Landfill, Inc. to clean approximately twelve lagoons which were filled with various liquid sludge and septage wastes. A Feasibility Assessment of the site was completed in October 1981. On June 16, 1982 NJDEP's Solid Waste Administration decided that future remedial measures would include monitoring of site wells in order to determine the full extent of ground water contamination. In addition, Southern Ocean Landfill, Inc. was directed to develop and submit to NJDEP a corrective action plan which will abate the ground water contamination. The NJDEP will soon issue a New Jersey Pollutant Discharge Elimination System Permit which will include ground water monitoring on and off site.

In 1984 NJDEP proposed the Southern Ocean Landfill, Inc. for the National Priorities List (NPL), however, it has not been accepted by the United States Environmental Protection Agency for inclusion on the NPL and it will be addressed with State funds if necessary.
Site Name

Spence Farm
(Off) Moorehouse Road
Plumsted Township
Ocean County

Site Description

Spence Farm is one of seven "Plumsted" sites in the Ocean and Monmouth County area. It is located approximately 1/2 mile northeast of New Egypt in Plumsted Township. All of the Plumsted sites are within approximately a twenty square-mile rural farming area. From the 1950s to the early 1970s, drummed and bulk liquid waste was dumped in an on-site lagoon and swamp area.

Environmental Impact

Sampling and analysis of ground water, surface water, and the underlying aquifer revealed organic chemical contamination. Contaminated ground water from the site discharges into Crosswicks Creek.

Status

On September 30, 1982, the New Jersey Department of Environmental Protection (NJDEP) entered into a Cooperative Agreement with the United States Environmental Protection Agency (USEPA) to commit $320,000 for a Remedial Investigation/Feasibility Study (RI/FS). A contract for the RI/FS was awarded by USEPA in November 1983. Site access clearance was secured by the NJDEP's Office of Regulatory Services and field work began in December 1983. The RI/FS work was completed in August 1984 and the remedial action alternatives were evaluated by NJDEP. The Record of Decision was completed in September 1984 and recommended the removal and off-site disposal of all drums and lab packs, excavation and off-site disposal of contaminated soil, sediment control during excavation and sampling and annual monitoring of on-site wells for a five year period.

Of 97 New Jersey sites on the National Priorities List, Spence Farm is ranked 42nd.
Site Name
Storer Drum Dump
Marlboro Township
Monmouth County

Site Description
This site is an illegal landfill located at 354 Amboy Road, near Route 13 and just south of Texas Road. Deep Run, a tributary of the South River, is situated about one mile away. Approximately ten acres of this 27-acre site were used as a drum-disposal dump by the property owner. There are approximately 380 drums scattered throughout the site. Roughly 180 of these are empty; of the remaining 200 drums, 111 were previously staged in plastic-lined trenches. Many of the drums are in poor condition and leaking. Drum disposal is believed to have ceased in 1972.

Environmental Impact
Analysis of the drummed material has revealed the presence of hazardous wastes including xylene and toluene. As a result, the potential for fire and explosions occurring on site is an ever-present danger. The property owner has also admitted to using the material as a dust suppressant on dirt roads on his property. There is a possibility of soil and ground water contamination.

Status
This site first came to the attention of the New Jersey Department of Environmental Protection (NJDEP) in January, 1981. In April of that year, NJDEP issued a Notice of Prosecution to the property owner to remove and properly dispose of all chemical waste at the site. Numerous attempts were made to assist the owner in accomplishing the cleanup. In February, 1983 a Directive Letter cited the owner for further violations and directed him to begin cleanup operations. A cleanup proposal was submitted to NJDEP in March, 1984 but it was deemed unacceptable. NJDEP reviewed and accepted a formal cleanup plan from the property owner in August, 1983. However, though negotiations were completed, a Consent Agreement was never finalized. Presently, NJDEP is proceeding with its own remediation schedule and anticipates issuing a Request for Proposals in early 1985.

10/84
Site Name

Summit Metals Inc.
Jersey City
Hudson County

Site Description

Summit Metals Inc. is located at 36-44 Aetna Street. This site is located in a flood hazard area, adjacent to Liberty State Park which is less than ½ mile from the site. The company acquires transformers from various sources, dismantles them and drains the oil into tanks and drums. This oil is then used to supply an on-site furnace. During the oil transfer process spills have occurred directly onto the ground. In addition, oil residue from the transformer cases drains onto the ground when they are put on the scrap pile. Approximately four drums containing Polychlorinated biphenyls (PCBs) are in a deteriorating condition. The copper cores and remaining metals are sold as scrap.

Environmental Impact

Analyses of the oil from the transformers and soil samples indicate high concentrations of PCBs. There are no diversion or containment structures to prevent the oil from leaking onto the ground. Soil throughout the facility is soaked with oil. The extent of contaminated soil is not known.

During times of heavy rain or flooding, runoff from the site enters the Morris Canal Basin which leads to the New York Bay. The fence surrounding the site is not secure and the front gate does not work.

Status

In June 1981 an Administrative Complaint was filed against Summit Metals for four violations of PCB regulations under the Toxic Substances Control Act (TSCA). A settlement was reached in March 1982 wherein Summit Metals agreed to properly dispose of all PCB contaminated soil on the premises.

Summit Metals Inc. is included in the New Jersey Department of Environmental Protection's Management Plan for hazardous waste site cleanups and it will be addressed with State funds if necessary.
Site Name

Swope Oil & Chemical Company
8281 National Highway
Pennsauken Township
Camden County

Site Description

The Swope Oil and Chemical Company is located north of Pennsauken on a one-acre site in an industrial park, which is surrounded by warehouses and railroad right-of-ways. The Delaware River is 1.2 miles northwest of the site and the Pennsauken Creek is 0.8 mile to the northeast. Delair and Morrisville Townships are the nearest residential areas, about 0.5 mile to the west and southwest respectively.

Swope Oil and Chemical Company operated a Chemical reclamation operation from 1963 until December, 1979. Some of the products processed at the site include phosphate ester hydraulic fluids, paints and varnishes, solvents, oils, plasticizers and printing inks. Waste sludges were discharged to an unlined lagoon. Contaminated material was ponded within a diked tank farm and in an exposed drum storage area. Reports indicate that past discharges from the lagoon and on-site spills entered drainage ditches and storm drains which discharged into Pennsauken Creek. There were approximately 140 deteriorating drums, 30 storage tanks in size from 3,000 to 20,000 gallons, and a 4,000 square foot unlined lagoon on site.

Environmental Impact

There is a considerable amount of soil contamination. Pollutants that were found in the soil samples include toluene, chromium, copper, lead, and zinc. The unlined waste water lagoon contains various hydrocarbons, phenols, and metals which have contributed to the ground water contamination. The ground water is at a depth of 80 to 100 feet. Several wells, including a municipal water supply well, are within one mile of the site. The site lies within a recharge area for the Potamic-Magothy-Raritan Aquifer system, which is one of the most important sources of potable water in Camden County. Air pollutants may be generated by vapors which are emitted into the atmosphere by chemicals in the lagoon.

Status

On September 28, 1983 the United States Environmental Protection Agency (USEPA and the New Jersey Department of Environmental Protection (NJDEP) entered into a contract to commit $215,000 for a Remedial Investigation/Feasibility Study (RI/FS). The study was initiated in October, 1983. In March 1984, the USEPA, NJDEP and waste generators met to discuss private site cleanup and a draft Consent Order. Subsequently, in May 1984, three responsible parties agreed to undertake remedial measures via an Administrative Consent Order, and initial site remediation activities are currently underway. Thus far, the waste generators have removed some of the deteriorating drums, and pumped out some aqueous wastes from the unlined lagoon. The responsible parties have also indicated an interest in implementing the engineering design phase upon completion of the RI/FS and submitted a remedial action work plan to USEPA and NJDEP in October 1984.

Of 97 New Jersey sites on the National Priorities List, the Swope Oil & Chemical Company is ranked 76th.

10/84
Site Name
Syncon Resins
South Kearny
Hudson County

Site Description

Syncon Resins is an inactive paint, varnish, and resin manufacturing facility situated within an industrialized section of a coastal wetlands management area. This 15-acre site is bordered on the west by the Passaic River, a tidal waterway, and on the east by Jacobus Avenue. There were 12,824 55-gallon drums on site, most of which were in poor condition and leaking. Analyses indicated that many contained hazardous substances including volatile and flammable materials which posed an immediate fire and air pollution threat. Also on site are: 144 bulk storage tanks, ranging in capacity from 375 gallons to 600,000 gallons, that contain various hazardous materials; two unlined lagoons, used for subsurface disposal of process waste, that were sampled and found to contain hazardous organic chemicals; and five suspected underground storage tanks. Among the diverse contaminants found at this site were volatile organics, pesticides, polychlorinated biphenyls (PCBs) and heavy metals.

Environmental Impact

Analyses have shown that soil and shallow ground water are contaminated with a wide range of Priority Pollutants and PCB's. Ground water is used for industrial processes in the area.

Status

In November 1981, an Administrative Order was issued by the New Jersey Department of Environmental Protection (NJDEP), Division of Water Resources, requiring Syncon to control and contain the hazards at the site. However, the company has since filed for bankruptcy. A Remedial Action Master Plan (RAMP) was prepared by the United States Environmental Protection Agency (USEPA) in November, 1982. A Cooperative Agreement was signed in December 1982, committing $2,000,000 for the Initial Remedial Measure and $350,000 for a subsequent Remedial Investigation/Feasibility Study (RI/FS).

Cleanup work in the Initial Remedial Measure began in February, 1984 and proceeded in two phases. Phase I included the inspection and sampling of all drums after which the contents were grouped into categories of compatibility prior to ultimate disposal. This phase also included the completion of a Tank and Vessel Report which determined the capacity and integrity of each tank and vessel, the quantity and phase (liquid, solid or gas) of the material they contained, and assigned a number to each. Phase II, which included transportation, treatment and/or disposal of the waste, was for the most part, completed by late May 1984 while a few remaining drums and bulked wastes were removed in August 1984. All 12,824 drums have been removed from the site. This removal project accounts for the disposal of 1,623 full, intact drums and 3,200 tons of bulked hazardous material (crushed drums, mixed wastes and other debris). To date, $1,804,346 has been spent for the Phase I & II operations. The final cost is expected to be approximately $2,062,000 with the Federal Superfund paying for 90 percent of the cleanup and the State Spill Fund paying the remaining 10 percent. NJDEP awarded a contract to conduct the RI/FS to address the remaining contamination in November, 1984. Of 97 New Jersey sites on the National Priorities List, Syncon Resins is ranked 47th.

11/84
Site Name

T. Fiore Demolition Contractors Landfill
Rutherford Street
Newark
Essex County

Site Description

This is a ten acre abandoned landfill located in the East Ward section of Newark. It is bordered by the New Jersey Turnpike on the northwest and by a drainage ditch to the south and east. It is known to have been used illegally to accept demolition rubbish, various types of oils in bulk, and suspected of accepting chemical wastes in 55 gallon drums. The New Jersey Department of Environmental Protection (NJDEP), United States Environmental Protection Agency (USEPA) and Coast Guard have been involved in major oil spill cleanup dating back to April 1974. During such a cleanup, a decomposed body was found on site. Fires have also been recorded during inspections.

Environmental Impact

The proximity of the landfill to the Turnpike can subject many individuals to contaminants that could be released from the landfill via volatilization and/or evaporation. Ground water contamination is probable; a result of bulk dumping of wastes. Ground water intrusion into the estuarine environment is a major concern. The drainage ditch on site leads into Newark Bay via the Passaic River.

Status

T. Fiore Demolition applied for an application to conduct a Refuse Disposal Operation in the early 1970s. This was denied and the landfill was not registered or licensed but was operated illegally pursuant to articles and regulations of the New Jersey Administrative Code and New Jersey State Sanitary Code. Subsequent inspections in the summer of 1982 were held by the NJDEP for the purpose of submission to the National Priorities List (NPL). The site was ranked and rejected for Superfund status. The T. Fiore Demolition Landfill site is included in the NJDEP's Management Plan for hazardous waste site cleanups and will be addressed with state funds if necessary.
Site Name

Tabernacle Drum Dump
Tabernacle Township
Burlington County

Site Description

Tabernacle Drum Dump is a one acre site on Carranza Road surrounded by farmland. In 1976 or 1977, a number of chemical filled drums and other containers were illegally dumped on this privately owned lot. These included approximately: 139 55-gallon drums, 33 5-gallon paint cans and three 20-gallon cans. Many of the containers have severely corroded and their contents have been released to the environment. Content analyses revealed the presence of toluene, carbon tetrachloride, benzene, xylenes, ethyl-benzene and polychlorinated biphenyls (PCBs). Soil samples have provided evidence of sub-surface contamination. The existence of a plume of groundwater contamination is regarded as a strong possibility.

Environmental Impact

Soil contamination at this site is of great concern, as is the potential for pollutant penetration to the Cohansy Aquifer. The surrounding farms are dependent upon groundwater for potable supplies.

Status

Initial sampling and analysis of the containers was performed by the New Jersey Department of Environmental Protection (NJDEP) in November, 1982. An Administrative Order was signed by the United States Environmental Protection Agency (USEPA) in February 1984 requiring the responsible party to perform a surface cleanup. This was to include the installation of four monitoring wells and the removal of the drummed materials and contaminated soil. The cleanup began in April 1984 and has resulted in the removal of: two 20-cubic yard containers of material from drums, eight truckloads of excavated soil, and approximately 3,000 gallons of liquid material. However, the responsible party has not installed monitoring wells or initiated soil tests at the site. USEPA is attempting to resolve these issues. Meanwhile, NJDEP is expecting to enter into a contract with USEPA committing $375,000 in Federal funds to the performance of a Remedial Investigation/Feasibility Study (RI/FS) in order to address any remaining contamination at the site. It is anticipated that the contract will be signed in the second quarter of Federal FY'85. Once approved, the RI/FS is projected to take approximately seven months from initiation to completion.

Of 97 New Jersey sites on the National Priorities List, the Tabernacle Drum Dump is ranked 71st.
Site Name

Toms River Chemical Company
(Ciba-Geigy Corporation)
Dover Township
Ocean County

Site Description

Toms River Chemical Company, now owned by the Ciba-Geigy Corporation, is located approximately one mile west of the Garden State Parkway near State Route 37. A portion of the eastern property line is bounded by the Toms River and a natural outdoor recreation area, Winding River Park, lies along the river. There are two senior citizen developments located approximately one mile south of the property. The Cohanse Aquifer, the main water source for the surrounding community and southern New Jersey in general, underlies the site. The company is engaged in the batch manufacture of a variety of synthetic organic dyes, pigments and epoxy resins. The facility has the capacity to produce 220,000 pounds of dye stuffs and intermediates and 105,000 pounds of epoxy resins per day. Waste waters are treated in a 7.5 million gallons per day treatment plant with a lined overflow storage reservoir and discharged under a Clean Water Act permit to the Atlantic Ocean. Prior to treatment, raw waste waters are impounded in a lined equalization basin (12 million gallon capacity). This impoundment is believed to be a contributing source of ground water contamination at the plant. Four other on-site waste disposal areas include an active landfill, an inactive sludge disposal site, an inactive chemical landfill (that received drummed solid residues and waste lime sludge), and four inactive waste water treatment lagoons. Beginning in 1977, a new lined landfill was used in place of the unlined landfill which was closed with a membrane liner top cover. From the mid-1950s to 1972 the unlined landfill accepted chemical liquid wastes and it is suspected that 100,000 drums containing chemical wastes were buried on site.

Environmental Impact

Two on-site shallow water wells were closed by the Toms River Chemical Company in the early 1970s and new wells were drilled into the deeper confined Raritan Formation. Public water wells are located about 1,000 feet from the facility. Although ground water contamination has been detected beneath the site, none has been found in potable wells potentially influenced by the site. However, irrigation wells have been closed in the Cardinal Drive area due to ground water contamination. Toms River, a major recreational water body, flows past the facility and serves as both a partial source of water and a receiving body for the facility's storm water and cooling water.

Status

The company prepared proposals for remedial action. Since the proposals were not approved by the New Jersey Department of Environmental Protection (NJDEP), the case was referred to the New Jersey Attorney General's office in April 1983. A Superior Court Order that addressed all aspects of the contamination was issued to Ciba-Geigy in June 1984, however, the deadline by which the company was expected to agree to the order expired. The site has thus become a United States Environmental Protection Agency lead and they have initiated a Remedial Investigation/Feasibility Study (RI/FS). Meanwhile, Ciba-Geigy has taken steps to implement a plan designed to intercept the ground water contamination by installing five wells around the periphery of the site to pump out the contaminated water. The company has also submitted a plan to NJDEP to remove
approximately 14,000 contaminated drums from their active landfill. Both of these plans are presently being reviewed by NJDEP and will be negotiated. The company has also agreed to pay the cost of the RI/FS.

Of 97 New Jersey sites on the National Priorities List, the Toms River Chemical Company is ranked 25th.
Site Name
U.S. Radium Corporation
Alden and High Streets
Orange City
Essex County

Site Description
This is a one-acre tract of land located on Alden and High Streets in a densely populated area of the city. The site was formerly owned by the U.S. Radium Corporation which operated a radium-processing facility here from 1915 to 1926. During that period the company processed 0.5 tons of ore daily, disposing of the waste on site. From these figures it is estimated that 1,600 tons of radium-contaminated waste material were dumped on the site during the 11 years of the plant's operation.

The original U.S. Radium facility has been razed and the site has been subdivided. One parcel consists of a commercial property containing seven buildings used for various commercial and industrial purposes. The other parcel encompasses three vacant lots which were acquired by the City of Orange with Green Acres funds.

Environmental Impact
A survey conducted in 1979-1980 by the New Jersey Department of Environmental Protection (NJDEP) indicated concentrations of radon and radon progeny that could endanger the 100 people working at the site. Radiation levels in some areas of the site required that exposure time be limited. Off-site readings show greater than normal, but not significant, radiation counts in residential areas around the property. These counts fluctuate depending on weather conditions.

Status
A Remedial Action Master Plan was undertaken by the United States Environmental Protection Agency in June, 1983. The Safety Light Company, corporate successor to the U.S. Radium Corporation, has also hired a contractor to review all available information on the site. Responsible party negotiations are currently underway.

Of 97 New Jersey sites on the National Priorities List, the former U.S. Radium Corporation site is 67th.
Site Name
Universal Oil Products
East Rutherford Borough
Bergen County

Site Description

The Universal Oil Products (UOP) Chemical Division site is located along State Route 17 on a relatively flat 85-acre tract of land within the coastal wetlands management area of the Hackensack River Basin. The site is bordered on the southwest by Berry's Creek which joins the Hackensack River about 3.5 miles downstream. One of its tributaries, Ackerman's Creek, flows through the property. In 1960 UOP purchased the property from TruDeck Laboratories who had used the site since 1955 as a recovery facility for solvents and waste chemicals. A waste treatment plant was constructed in 1956 and further expanded waste water holding lagoons in 1959. UOP adopted the facility to manufacture specialty organic chemicals (primarily benzyl alcohol and amyl salicylate). Based upon manifest records, it is estimated that approximately 4.5 million gallons of waste solvents and solid chemical wastes were dumped into the unlined lagoons located on the eastern part of the property. By 1971, neither the on-site treatment system nor the two lagoons was in use. UOP terminated its operations at the site in 1979 and razed the plant in 1980. The contaminants found on site include chromium, arsenic, lead, benzene, chlorobenzene, 1,1,2,2-tetrachloroethane, trichloroethylene, vinyl chloride, toluene and other organic and inorganic chemicals.

Environmental Impact

In March, 1980 the New Jersey Department of Environmental Protection (NJDEP) requested that the company install six shallow ground water monitoring wells; sampling of these wells revealed organic contamination. There is also concern about contamination of the underlying deep ground water aquifer. Additional sampling has indicated both soil and surface water contamination related to the site. Incidents of dead fish in Berry's Creek have been reported, however, other suspected sources of contamination may have contributed to the kills.

Status

In March, 1981 a consultant was employed by UOP to conduct a hydrogeologic investigation in order to assess the impact and extent of the contamination and to locate its source(s). In August 1982, an Administrative Order was issued by NJDEP demanding a more extensive ground and surface water monitoring program in addition to submittal of details as to where old landfills, lagoons and storage tanks might be located and what they might contain. An administrative hearing on the order was held in March 1983 at UOP's request. An Administrative Consent Order (ACO) was signed in July 1983 and the company completed an initial investigation in May 1984. In a September 1984 amendment to the ACO, UOP agreed to conduct a further study which is expected to satisfy NJDEP's requirements for a complete Remedial Investigation/Feasibility Study to determine future courses of action. Field investigations were initiated in mid-October 1984.

Of 97 New Jersey sites on the National Priorities List, the Universal Oil Products is ranked 16th.

10/84
Site Name

Upper Deerfield Township Sanitary Landfill
Upper Deerfield Township
Cumberland County

Site Description

The Upper Deerfield Township Sanitary Landfill is located on Husted Station Road and extends west to within 200 feet of Centerton Road in Cumberland County. Originally a gravel pit, this 14-acre rural site served as a solid waste disposal facility until its closure on December 31, 1983. Presently, the amount and source of hazardous substance disposal is unknown.

Environmental Impact

Ground water analyses of site monitoring wells and potable water wells have revealed mercury contamination. Residential wells in the immediate area are being monitored for signs of contamination. Nine private wells have been identified as contaminated and geophysical testing indicates that the contamination is traveling south-easterly toward other residences. Affected residents have been advised not to drink their water and have been provided with interim water supplies.

The major concern is the potential contamination of the Cohansey Aquifer which is the source of potable water for the area. Approximately 1,000 private wells are within a three-mile radius of the known contamination.

Status

In November 1981, a Notice of Prosecution was issued by the New Jersey Department of Environmental Protection (NJDEP) to the Upper Deerfield Township Sanitary Landfill for various operational deficiencies. In addition, another Notice of Prosecution was issued for the acceptance of unauthorized waste. Upon site closure on December 31, 1983, Upper Deerfield Township was required to cover the landfill with one foot of material that is suitable for vegetative growth and maintain its propagation, and submit an application to NJDEP in January, 1984 for a New Jersey Pollutant Discharge Elimination System permit. The NJDEP is of the opinion that a site evaluation study must be conducted to determine the effects of the buried wastes on the quality of the air, ground water and surface water. Presently, NJDEP is in the process of negotiating an Administrative Consent Agreement with Upper Deerfield Township.

Of the 97 New Jersey sites on the National Priorities List, the Upper Deerfield Township Sanitary Landfill is ranked 87th.
Site Name

Vineland Chemical Company, Inc.
West Wheat Road
Vineland City
Cumberland County

Site Description

This is a 20 acre site located along the Blackwater Branch of the Maurice River in a mixed residential and industrial section of the City of Vineland. It is an active facility which has manufactured herbicides since the 1950s.

Environmental Impact

Prior to 1977, the company stored by-product arsenic salts in chicken coops and open piles on the property. This storage practice, together with the direct discharge of untreated process water, has resulted in soil, ground water and surface water contamination.

Ground water sampling on site in 1982 indicated the presence of arsenic at levels as high as 19.8 parts per million (ppm). However, later sampling of new monitoring wells revealed arsenic levels up to 600 ppm. Testing of sediments from the Maurice River which flows into Union Lake at a point eight miles downstream from the site, indicated the presence of arsenic at the level of .997 ppm. Analyses from previous years had revealed greater levels of arsenic in the sediments and waters of Union Lake. Both the lake and the Maurice River are used for recreational purposes.

The local community is entirely dependent upon ground water for its potable water supply. The majority of residences is serviced by municipal water supplies.

Status

In 1979, pursuant to a New Jersey Department of Environmental Protection Administrative Order, the company began operating a ground water decontamination system and currently treats its process water, which is discharged to an unlined lagoon (with arsenic levels up to .7 ppm). The decontamination system has a design capacity to treat 25,000 to 36,000 gallons of water per day while the total amount of ground water leaving the site is estimated to be 400,000–500,000 gallons per day.

An Administrative Order detailing work to be accomplished in the Remedial Investigation/Feasibility Study has been signed by the United States Environmental Protection Agency and representatives of the Vineland Chemical Company. The Vineland Chemical Company is presently undertaking this study.

Of 97 New Jersey sites on the National Priorities List, Vineland Chemical Company, Inc. is ranked 10th.
Site Name

Vineland State School
1676 Landis Avenue
Vineland
Cumberland County

Site Description

The 195-acre Vineland State School, located just north of Route 540 and east of Route 555, is an institution for the mentally handicapped managed under the auspices of the New Jersey Department of Human Services (NJDHS). Five distinct locations have been identified as potentially contaminated by hazardous substances as a result of activities conducted by the Vineland State School from approximately 1952 to 1976. Three of the sites are located on the State School campus proper and two are located on properties formerly owned by the school on streets adjacent to the campus.

Site 1 - This site is located at the northeast portion of the campus between the campground at Spring Road and a recreational pavilion structure. Some twenty-five years ago, the school operated an incinerator and an adjacent landfill at Site 1. The landfill was essentially a large pit used for the disposal of residue from the incineration process and trash materials deemed inappropriate for burning.

A former employee of the institution, now deceased, alleges that approximately 6000 to 8000 containers of a mercury and/or arsenic based substance was buried at this site. The New Jersey Department of Environmental Protection (NJDEP) suspects that the substance is most likely a pesticide or rodenticide. It is known that a large farming operation was managed by the State School during the alleged period of the burial; both mercury and arsenic were constituents of pesticides/rodenticides during the period in question.

Site 2 - This site is located on-campus in front of a storage shed. NJDEP was notified by school administrators that transformer oil was spilled by a scrap metal company contracted by the school to remove three out-of-service transformers.

Site 3 - This site is an area bordered by Maple Avenue, Becker Drive, and Oak Road at the northern portion of the institution operated by the Division of Youth and Family Services, NJDHS. This approximately five acre site was utilized as a garbage dump for nearly a decade. A former employee of the facility has indicated to the Department that chemical substances, particularly those used in the farming operation, may have been deposited at this site.

Site 4 - This site is a former gravel pit area approximately 2,000 square feet in area located between Spring Road and Linwood Avenue just off of Megan Court.

A former employee of the facility alleges that transformer oil was disposed of by burial at this site. Such transformer oil may contain polychlorinated biphenyls (PCBs).

Site 5 - This site is an area of approximately one-hundred square feet located in a vacant field on the campus grounds between the water tower parking lot and a farm storage shed.
A former employee of the facility alleges that a dump truckload of pesticides contained in bags and rusted five gallon metal containers was buried in this area.

Environmental Impact

There is concern that if the alleged dumping of the mercury/arsenic based substances or any unknown hazardous substance did occur, it could contaminate the Cohansey Aquifer. Testing of eight potable wells on Spring Road and Maple Avenue has shown a mercury level at one home in excess of the State drinking water standard on an intermittent basis while one of three monitoring wells at Site 1 displayed an arsenic level above State drinking water standards. Four rounds of soil sampling at the PCB spill area (Site 2) has confirmed soil contamination but indicates that the contamination is essentially confined to the top three feet of soil. Ground water contamination by PCBs has not been established, although the presence of clay in the subsurface would restrict the movement of PCBs into the water table.

Status

In August of 1982, NJDEP installed three monitoring wells for sampling purposes to address Site 1, the only known site at that time. Upon confirming the PCB soil contamination at Site 2, NJDEP requested that NJDHS promptly act to secure this contaminated area from all pedestrian and vehicular traffic, construct a soil berm around the site, and cover the area with a 6-mil plastic covering.

As a result of negotiations and a mutual agreement reached between NJDEP and NJDHS, NJDEP received $3,000 from NJDHS for the purpose of performing investigative work at the five sites in question. Approximately $10,000 was for reimbursement to NJDEP for work previously performed.

Of 97 New Jersey sites on the National Priorities List, Vineland State School is ranked 57th.

3/85
Site Name

W.A. Cleary Chemical Corporation  
Franklin Township  
Somerset County

Site Description

W. A. Cleary Chemical Corporation is an active manufacturing and processing facility located on Route 27 in Franklin Township. The Corporation produces various types of pesticides for agricultural purposes, dyes for artificial Christmas trees, and release agents for the bakery and confectionary industries. The pesticide manufacturing involves various chemicals including mercuric oxide, benzene, acetic acid, monosodium methyl arsonate, calcium oxide and cadmium nitrate. For over thirty years the company used an undersized lagoon for collection of chemical wastes from pesticide processing. This practice was discontinued in 1981 and since then only the wastes from the tree dye processing have been discharged into the chemical lagoon. Wastes from the production of food release agents are discharged into a concrete holding tank which discharges into two serially connected lagoons. The quantity of hazardous substances on the W.A. Cleary property is unknown.

Environmental Impact

Analyzed samples from site wells indicate that the ground water is contaminated with arsenic, cadmium, mercury, benzene and chloroform. On-site well water was condemned for drinking purposes in January 1981. Contaminant migration off site is a concern because there are 100 private wells that depend on ground water within a three mile radius of the W.A. Cleary property. There is potential for surface water contamination due to the fact that runoff effluent sampled from a ditch between the lagoons and the adjacent golf course revealed arsenic and cadmium in excess of potable water standards. A tributary of Mill Run is approximately 2,000 feet from the lagoons.

Results of soil sample analyses indicate the presence of arsenic, mercury and cadmium especially in the areas around and southwesterly of the chemical lagoon. Oil stained ground areas are covered with dead vegetation. During the 1950s a golf course which utilizes W.A. Cleary products was constructed adjacent to the site. The effects of potential contamination on the grass surface are not known.

Employees of W.A. Cleary Chemical Corporation are exposed to thiram which is an irritant to mucous membranes and a skin sensitizor. There is a possibility of food chain contamination if strict segregation standards are not enforced because the company manufactures fungicides as well as lecithin for binders in food products. The site is open on all sides permitting easy access to the waste lagoon area including the chemical pond which has high levels of heavy metals.

Status

On January 27, 1981 the Somerset County Board of Health advised the owner of W.A. Cleary Chemical Corporation that the well water was unsuitable for drinking and that warning signs should be clearly posted and bottled water provided for employees. A Directive Letter from the New Jersey Department of Environmental Protection (NJDEP), Division of Water Resources (DWR) was issued to the owner of the company on February 11, 1981 in order to effect remedial actions with regard to an abandoned well, the pesticide waste lagoon and the bedrock on the adjacent golf course. On June 25, 1981 another Directive Letter was issued by NJDEP, DWR which required W.A. Cleary Chemical Company to submit permit
applications for the three food additive lagoons and the chemical waste lagoon, and to stall the enlargement of the chemical lagoon until the pollutants are removed and disposed of according to NJDEP regulations.

An Administrative Consent Order (ACO), directing the cleanup of ground water and contaminated areas, became effective in October 1982. Presently the ACO is under revision.

In 1984 NJDEP proposed the W.A. Cleary Chemical Company for inclusion on the National Priorities List (NPL), however, it was not accepted by the United States Environmental Protection Agency for the NPL. If necessary, site cleanup will be addressed with state funds.

10/84
Site Name

W. R. Grace & Company
Wayne Township
Passaic County

Site Description

The W. R. Grace & Company site is a 6.5 acre tract of land in Wayne Township, east of the intersection of Pompton Plains Cross Road and Black Oak Ridge Road. Sheffield Brook, a tributary to the Pompton River, flows through the property. Fresh water wetlands lie approximately 1800 feet to the west. From 1948 until 1971 the company extracted thorium and rare earths from monazite ore. Operations were first supervised by Rare Earth, Inc. and then by Davison Chemical Company, a division of W. R. Grace. When W. R. Grace ceased processing monazite ore in 1971, their Nuclear Regulatory Commission (NRC) license was amended to permit only the storage of radioactive materials. In 1974, the site was released from licensing with the provision that the land deed indicate that radioactive materials were buried on site. Contamination has been found at: the plant site, Sheffield Brook, an adjacent property, and a small section of a railroad track spur approximately one mile from the site.

Environmental Impact

Elevated radiation levels at the plant site and an area west of the plant were revealed during an aerial survey conducted in May 1981. There is extensive soil contamination as well as buried radioactive waste on the property. Off-site property is contaminated as a result of past effluent release practices and soil dispersion. Although water samples from surface drainage show evidence of contamination, they are within federal and state drinking water standards. Analysis of samples taken from the Sheffield Brook exhibited sediment contamination. The Passaic River and its tributaries, used for fishing and recreation, may be threatened by surface water contamination flowing downstream. Analyzed air samples indicated acceptable concentration levels of radon - 222 in the main building and outdoors, however the concentrations in the warehouse exceeded this standard.

A comparison of the areas' radiological conditions indicate that future remedial actions are necessary both on and off the site.

Status

The site was decontaminated in 1974 by W.R. Grace & Company. That same year, the NRC released the site for unrestricted use provided that the land deed indicated that radioactive material was buried on the property.

Two million dollars were appropriated to the U.S. Department of Energy (USDOE) by Congress for remedial action at the site. W.R. Grace & Company sold the property to USDOE in September of 1984. Monitoring wells have been installed with additional wells scheduled to be installed in November of 1984. A fence has been erected at the site to limit access. The site is presently being prepared for remedial action. Contaminated soil will be stabilized and stored on the property until a permanent repository for low-level radioactive soils is established. Additional remedial work will depend on continued funding by Congress.

Of the 97 New Jersey sites on the National Priorities List, the W. R. Grace & Company site is ranked 40th.
Site Name

Waldick Aero-Space Devices, Inc.
Wall Township
Monmouth County

Site Description

Waldick Aero-Space Devices, Inc. is an active manufacturing facility which produces mechanical parts for spacecrafts. It is located at 2121 Route 35 in Wall Township. For approximately three years (1979-1983), the company discharged waste water containing volatile organics, caustic acids and heavy metals onto the ground.

Environmental Impact

In June 1982 inspections and sampling conducted by the New Jersey Department of Environmental Protection (NJDEP) and the Division of Criminal Justice revealed significant soil contamination by cadmium, chromium, and tetrachloroethylene. Sampling and analysis of on-site monitoring wells also indicated significant concentrations of the same chemicals.

Contamination was found in the Cohansey Aquifer which is the uppermost aquifer underlying the site. Drinking water is pumped from the two lower aquifers (Wenonah and Englishtown). There is a possibility that water may leak from the Cohansey Aquifer to the Englishtown Aquifer thus presenting a threat to a major source of potable water. The Wenonah and Englishtown Aquifers serve approximately 28,500 people in Spring Lake Heights and Wall Township.

Hannabrand Brook is approximately 750 feet downslope of the Waldick Aero-Space site. This brook is stocked with trout for public consumption and is used for recreation.

Status

In October 1982 NJDEP's Division of Water Resources sent a letter to Waldick Aero-Space demanding cleanup measures. Subsequently, under NJDEP's supervision, the company implemented some of the remedial measures including the installation of four monitoring wells and the excavation of some contaminated soil. (In September 1984, contaminated soil was disposed of off-site.)

In October 1983 the Monmouth County Grand Jury issued an indictment charging Waldick Aero-Space Devices, Inc. with dumping hazardous wastes and maintaining an illegal plumbing system that drained process waste onto the ground behind the plant and onto a neighboring property. In April 1984, a plea agreement placed responsibility for site cleanup with the Monmouth County Board of Health. Sampling was conducted by the county in October 1984. Additional sampling is being scheduled to determine the need for further soil removal.

In October 1984 the site was accepted by the United States Environmental Protection Agency for inclusion on the Interim National Priorities List (NPL). Of 97 New Jersey sites on the NPL, Waldick Aero-Space Devices, Inc. is ranked 45th.

10/84
Site Name

White Chemical Company
East 22nd Street
Bayonne City
Hudson County

Site Description

This is a 1.5-acre tract located within the property limits of Bayonne Industries. The property borders the Platti Kill which empties into the Kill Van Kull, a busy commercial shipping lane in the area of New York Harbor. The White Chemical Company formerly used this site for the manufacture of acid chlorides, alkyl bromides, brominated flame retardants and various specialty compounds. In the summer of 1983 the company moved all of its drums, tanks, and pipes to a site in Newark.

Environmental Impact

It was discovered via spill response inspections by State and Federal agencies that areas of the site were contaminated by toxic organic chemicals. Poor handling and storage practices over a period of many years have also resulted in soil contamination.

Status

During 1979 the New Jersey Department of Environmental Protection (NJDEP) responded to reported drum spillage of hazardous chemicals which had resulted from defects in packaging. Soil sampling was performed and results indicated the presence of hazardous substances. The NJDEP issued a Notice of Violation to the company in November 1979 for accumulating waste for longer than a six-month period, deteriorating/leaking drums and unmitigated spills. The United States Environmental Protection Agency imposed regulatory actions on the company for violation of the Clean Water Act. The cause of the problem was subsequently rectified by drumming the manufacturing process water. Further sampling and analysis were undertaken as part of the Administrative Consent Agreement signed by the NJDEP and White Chemical Company on August 5, 1983. The NJDEP is currently reviewing the analytical results to determine what cleanup actions will be taken at the site.
Site Name
Williams Property
Siegtown Road
Middle Township (Swain)
Cape May County

Site Description
This is an inactive site covering a 5.6 acre tract in a mixed residential/agricultural area. Less than three miles to the northwest, lies the Timber Beaver Swamp Fish and Wildlife Management Area, a major aquifer recharge zone, and on either side of the site are sections of prime wetlands habitat. The nearest surface water sources are standing waters in surrounding gravel pits roughly 700 feet away; Deep Creek is approximately 3,000 feet from the site. In 1979, it was discovered that 200 to 300 55-gallon drums containing hazardous materials had been punctured and allowed to drain into the soil. There is also evidence to suggest that there may have been tank-trailer discharges at the site.

Environmental Impact
Soil composition on site is of highly permeable sand, with varying amounts of fine gravel, overlaying the Holly Beach Aquifer. This, in turn, overlies the large Cohanseuy Aquifer which is separated by a layer of semi-pervious estuarine clay. It is not known, however, if the clay layer is continuous or not and it is feared that the contamination may flow downward into the Cohanseuy Aquifer, a 17 trillion gallon ground water source serving most of southern New Jersey. The Holly Beach Aquifer supplies approximately 60% of Cape May County residents with potable water. This aquifer is important for irrigation purposes and fire control as well. Extensive development has been planned for the region and the purity of this reserve is paramount to the plan. Some of the water-filled gravel pits are used for swimming and fishing and construction of a recreational facility had been tentatively planned for this area.

Status
In January, 1980 11 monitoring wells were installed and sampled under the direction of the New Jersey Department of Environmental Protection (NJDEP). Analyses indicated contamination by pesticides, heavy metals, and various organic and inorganic compounds. In June, 1980 the NJDEP supervised the removal and proper disposal of 1,160 cubic yards of contaminated soil. Removal of the soil and remaining drums, some of which were full, was financed under the New Jersey Spill Compensation Fund which, to date, has spent approximately $149,000 on operations at the site. Eight potable wells in the immediate vicinity are currently being tested for priority pollutants on a quarterly schedule by the NJDEP. Mr. Williams has been advised not to use his well and the Cape May County Department of Health is supplying him with bottled water.

In February, 1984 the Cape May County Planning Board, in conjunction with the County Board of Chosen Freeholders, decided not to approve new construction within a one-mile radius surrounding the dump site until cleanup is completed or sufficiently underway to identify the specific pollution area, or sufficient data is available to provide a sound basis for alternatives to solve the pollution problem. A Cooperative Agreement has been signed by the NJDEP and the United States Environmental Protection Agency (USEPA) providing $540,646 to conduct a Remedial Investigation/Feasibility Study and work was expected to begin in December, 1984. This project has been obviated, however, by USEPA's negotiations with a responsible party to conduct the study. This action was prompted by a court injunction in November, 1984.

Of 97 New Jersey sites on the National Priorities List, the Williams Property is ranked 58th.
Site Name

Wilson Farm
Plumsted Township
Ocean County

Site Description

The Wilson Farm property encompasses 438 acres on Hawkins Road in Plumsted Township, however, the study site covers approximately 10 acres. The outlying rural area is primarily used for agricultural purposes. During the 1960s and early 1970s, the site was used for the disposal of drums and bulk material containing volatile organics, chlorinated chemicals and heavy metals. The site is one of seven "Plumsted" sites in the Ocean and Monmouth County area.

Environmental Impact

Ground water sampling has indicated the presence of several pollutants, however, the extent of this contamination has not been determined. Approximately 500 homes utilize private wells within a three-mile radius of the site. A creek that runs directly adjacent to the site serves as a tributary to the Collier's Mill Lake and to active cranberry bogs. This lake is used for swimming and other recreation. The Wilson Farm is in close proximity to areas of open public access; it is 100 yards from Collier's Mill State Park and .4 mile from the New Jersey Wildlife and Game Refuge. The full extent of contaminant impacts is not known at this time.

Status

The New Jersey Department of Environmental Protection (NJDEP), Division of Waste Management conducted a site inspection in February, 1980 which resulted in the removal of 620 cubic yards of contaminated soil in September, 1980. A potential threat to surface water and ground water still exists. Further investigative measures to be implemented on site include the additional monitoring of wells and air quality. Enforcement action alternatives are being evaluated.

Of the 97 New Jersey sites on the National Priorities List, Wilson Farm is ranked 81st.

10/84
FORT DIX
MILITARY RESERVATION

08640
Site Name

Witco/Perth Amboy PCBs
Perth Amboy
Middlesex County

Site Description

The site consists of several areas within the City of Perth Amboy which have been contaminated by the release of polychlorinated biphenyl (PCB)-contaminated sewage from a blocked sewer line at Garretson Avenue and State Street. In addition, substantial PCB contamination has been discovered at the Witco Chemical Company site at 1100 Covery Boulevard. Some of this contamination has entered the sewer system and Spa Spring Creek. The blockage has also caused the sewage to be discharged through a bypass line into Crane's Creek, a tributary of the Arthur Kill. Sludge tested at the city sewage treatment plant has, in the past, indicated significant levels of PCBs. Approximately four miles of sewer line are contaminated with PCBs.

Environmental Impact

During heavy rainfall PCB-contaminated raw sewage discharges into Crane's Creek and Arthur Kill from the overflow pipes of the combined sewer system. In addition, this material may also flow onto private and public properties. The New Jersey Department of Environmental Protection (NJDEP) and the City of Perth Amboy have removed sediment from several areas where overflows have occurred.

Status

Numerous site inspections and samplings have been conducted by the NJDEP. The New Jersey Spill Compensation Fund was utilized for the removal of severely contaminated sediment from affected residential areas. Approximately $101,000 was spent on the removal of contaminated soil from Garretson Avenue.

Six Directive Letters and Notices of Violations were issued in October 1980 by NJDEP's Division of Water Resources to: The City of Perth Amboy, Frank Groman, Home-Dell Construction Company, Duane Marine Salvage Corporation, Arthur Kill Urban Industrial Park, Inc., and Witco Chemical Company. The state filed suit against Witco Chemical Company in January 1983 for the cleanup and removal of PCB contamination at its site, in the sewer system, in Spa Spring Creek, Crane's Creek and Perth Amboy's sewage treatment plant.

NJDEP has approved Witco's work plan to remedy the clogged sewer sections that are the source of periodic overflow. The sewer cleanup project began in March 1985 and is scheduled for completion by summer 1985. Concurrently, in November 1984 NJDEP initiated a Remedial Investigation/Feasibility Study to address the off-site contamination in Perth Amboy. Presently, the Witco/Perth Amboy PCBs site is included in NJDEP's Management Plan for Hazardous Waste Site Cleanups.
Site Name

Woodland Township Route 72 Dump
State Route 72
Woodland Township
Burlington County

Site Description

Situated approximately one-quarter mile south of State Route 72 on Sooey Road, the site occupies 15-20 acres in the Pinelands region of southern New Jersey. This region is a sparsely populated scrub pine and oak forest of sandy, porous soils, which has been designated as a protected critical habitat by the State of New Jersey. From 1950-1956 the dump was operated as an unregulated hazardous waste disposal facility by several chemical manufacturers. Wastes were brought to the site in 55-gallon drums and bulk transport. It is suspected that a full line of herbicides and pesticides were disposed of on site during the early years of the facility's operation. Records indicate that wastes were dumped and/or burned in pits and trenches. Field investigations reveal that substantial amounts of wastes were buried. Currently much of the site is devoid of vegetation. The surface is covered by charred materials, rotted drums, laboratory glassware, sludges, semi-solidified materials and unknown matter.

Environmental Impact

Limited investigations by the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA) to obtain and analyze ground water, soil and air, revealed the presence of hazardous substances in all these media. Analyses of sampling done by the responsible parties confirmed the presence of a wide range of hazardous substances in wastes and surface soils. Water contamination is the major concern because the site is in the center of the Pinelands protection area and in the recharge area of the Cohansey Aquifer, one of the largest potable aquifers on the East Coast. The site is also in the Wading River watershed. Numerous active commercial cranberry bogs, to the south and to the east of the site, depend upon surface water for irrigation. Pope Branch flows to the west of the site. The proximity of this feeder stream to the contamination may provide a pathway for contamination into the watershed and cranberry bogs. Although there are few residences within the immediate area, there is evidence of public recreational activity. The extent of impact is unknown at this time.

Status

In 1979, the parties responsible for the dumping hired a contractor to conduct a qualitative analysis of surface soils, wastes and surface waters. In December 1983, contractors for the responsible parties submitted a Work Plan to NJDEP for conducting an Environmental Assessment. In February 1984, NJDEP, Office of Regulatory Services (ORS), submitted a proposal for a privately funded Remedial Investigation/Feasibility Study to the attorneys representing the responsible parties. The proposal was intended to serve as a basis for settlement with the Woodland Dump generators. Subsequent negotiations between NJDEP and the responsible parties were not successful. USEPA is presently negotiating with the parties to reach an agreement.

Of 97 New Jersey sites on the National Priorities List, Woodland Township Route 72 Dump is ranked 92nd.

10/84
Site Name

Woodland Township Route 532 Dump
County Route 532
Woodland Township
Burlington County

Site Description

The Woodland Route 532 Dump is located in the Pinelands region of southern New Jersey in a sparsely populated scrub pine and oak forest which is a State designated protected critical habitat. It is situated approximately one-eighth of a mile south of Route 532 and covers 30-35 acres of sandy, porous soil. The site was operated as an uncontrolled hazardous waste dump by several major chemical manufacturers from about 1956 to the mid-1960s. Wastes were brought to the site in 55-gallon drums and bulk transport. It is suspected that a full line of herbicides and pesticides were disposed of on site during the early years of its operation. Records indicate that the wastes were dumped in open pits and trenches and then burned. Significant amounts of waste may be buried; many areas have portions of 55-gallon drums protruding through the ground. Rotting drums, laboratory glassware, black flowable sludges and unknown waste materials cover the surface of the site.

Environmental Impact

Limited investigations by the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA) revealed the presence of hazardous substances at the site. Analyses of sampling done by the responsible parties confirmed a wide range of hazardous contaminants in wastes and surface soils. Furthermore, hazardous substances were revealed during the testing of ground water and air. In July 1983, the NJDEP was contacted by the parties responsible for the dumping with concerns of 2,3,7,8 TCDD being present at the site. Of immediate concern is the potential contamination of the underlying Cohansey Aquifer, one of the largest potable water sources on the East Coast, and area surface water. The dump is located in the Wading River watershed. Surrounding the site to the north, south and east are numerous active commercial cranberry bogs that utilize large amounts of surface water for irrigation. Goodwater Run flows to the east of the site. The proximity of this feeder stream to the contamination may be providing a pathway into the watershed and cranberry bogs. There are no buildings on site and very few residences in the immediate area. The extent of impact is not known at this time.

Status

In 1979, the responsible parties hired a contractor to conduct a qualitative analysis of surface soils, wastes and surface waters. In December 1983, contractors for the responsible parties submitted a Work Plan to NJDEP for conducting an Environmental Assessment. In February 1984, NJDEP's Office of Regulatory Services (ORS) submitted a proposal for a privately funded Remedial Investigation/Feasibility Study to the attorneys representing the responsible parties. The proposal was intended to serve as a basis for settlement with the Woodland Dump generators. Subsequent negotiations between NJDEP and the responsible parties were not successful. USEPA is presently negotiating with the parties to reach an agreement.

Of 97 New Jersey sites on the National Priorities List, the Woodland Route 532 Dump is ranked 78th.