

**EPA Superfund  
Record of Decision:**

**SAYREVILLE LANDFILL  
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SAYREVILLE, NJ  
09/23/1998**

EPA 541-R98-138

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SUPERFUND RECORD OF DECISION

SAYREVILLE LANDFILL  
OPERABLE UNIT 11  
BOROUGH OF SAYREVILLE  
MIDDLESEX COUNTY  
NEW JERSEY

<IMG SRC 98138A>

PREPARED BY: N.J. DEPARTMENT OF ENVIROMENTAL PROTECTION  
SITE REMEDIATION PROGRAM  
BUREAU OF FEDERAL CASE MANAGEMENT  
SEPTEMBER 1998

SAYREVELLE LANDFILL  
OPERABLE UNIT II  
RECORD OF DECISION

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DECLARATION STATEMENT - RECORD OF DECISION  
SAYREVILLE LANDFILL - OPERABLE UNIT II

Site Name and Location

Sayreville Landfill Site

Borough of Sayreville, Middlesex County, New Jersey

Statement of Basis and Purpose

This decision document, prepared by the New Jersey Department of Environmental Protection (NJDEP) as lead agency, presents the selected remedy for the Sayreville Landfill, located in the Borough of Sayreville, Middlesex County, New Jersey. The remedy was chosen in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended 42 U.S.C. 89601, et seq. and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) as amended 40 C.F.R. Part 300. This decision document explains the factual and legal basis for selecting the remedy for this site. This decision is based on the administrative record for this site. The attached index identifies the items that comprise the administrative record.

The United States Environmental Protection Agency (USEPA), support agency for this site, concurs with the selected remedy and has provided a concurrence letter to that effect which is attached to the responsiveness summary section of this document.

Description of the Selected Remedy

This Record of Decision (ROD) sets forth the selected final remedy for the ground water, surface water and sediments in the vicinity of the Sayreville Landfill. The selected remedy is "No Further Action with Monitoring" for the ground water and "No Further Action" for the surface water and sediments. Closure of the landfill, designated Operable Unit I, was addressed in the first ROD for the Site signed on September 28, 1990.

The major component of the selected remedy includes:

- ! Monitoring of the wells surrounding the landfill to verify the effectiveness of the landfill cap to ensure that the landfill is not contaminating the ground water.
- ! Implementation of a Deed Notice to prevent any intrusive activities into the landfill cap
- ! Implementation of a Classification Exception Area (CEA) for the shallow aquifer in the vicinity of the Site.

This remedy complies With the NJDEP Ground Water Quality Standards, the Technical Regulations for Site Remediation, and Public Law 1993, c 112 (S-1070)

Declaration of Statutory Determination

The No Further Action remedy has been selected based on the results of the Baseline Risk Assessment, Pre-Design data and supplemental sediment sampling data, which show that no further action is protective of human health and the environment.

In accordance with CERCLA, the NCP, and state requirements, NJDEP has determined that no further action is necessary to ensure protection of public health and the environment at the Sayreville Landfill As was stated in the September 28, 1990 ROD for this Site (based on low levels of hazardous substances remaining on the site above health based levels), a review will be conducted within five years after commencement of the remedy selected in 1990 to ensure that the remedy continues to provide adequate protection of human health and the environment. This review will be a site-wide review including the remedy selected herein for OU-II.

<IMG SRC 98138B>

DECISION SUMMARY  
RECORD OF DECISION  
SAYREVILLE LANDFILL OPERABLE UNIT II

Site Name, Location, and Description

The Sayreville Landfill site is located (see Appendix A) in a moderately industrial section of the Borough of Sayreville in Middlesex County, New Jersey, approximately 1 mile south of Route 535 and 1.5 miles north of the Bordentown-Amboy Turnpike. Several small industries surround the site to the north east and south. The South River, which flows north, is a major tributary to the Raritan River and forms the western border of the site. The river waters adjacent to the site are designated for both primary and secondary contact recreation. Pond Creek forms a portion of the site boundary to the north and northwest, and Duck Creek on the south and southwestern edges. These waters are classified by the New Jersey Department of Environmental Protection (NJDEP) as fresh water Non-Trout. The site is partially located within the tidal wetlands of the river with drainage swales along the western part of the property,

The landfill property encompasses approximately 35 acres of land, of which, approximately 20 acres was used for wastefill and contains buried wastes. The wastefill area rises above the natural grade by approximately 8-10 feet, and is covered with low-lying vegetation and marsh grasses and bordered by small surface streams. The eastern section of the site, near Jernees Mill Road, contains clusters of hardwood trees. The nearest residential developments are located 1/2 mile to the north and 1/4 mile to the west (across the South River). Currently, access to the site is unrestricted.

The landfill is underlain by three major stratigraphic units. The Woodbridge/South Amboy confining sequence separates the deep Farrington aquifer from the shallow Cape May and alluvial deposit aquifers. Both the shallow and deep aquifers are designated by the State as suitable for use as drinking water sources. Currently, the deep aquifer is the only aquifer being used for drinking water purposes.

Site History and Enforcement Activities

From 1971 to August 1977, the Sayreville Landfill was operated by the Borough of Sayreville as a licensed municipal landfill which accepted primarily municipal solid wastes and some light industrial wastes. Reports from previous investigations indicate that hazardous wastes were disposed of at the site between August 1974 and 1977 when landfill operations ceased. In 1980, a landfill closure plan, which was approved by the NJDEP, was implemented at the site by the Borough. The closure requirements, consisted of one foot of clay on the landfill side slopes covered by one foot of soil capable of supporting vegetation. The top of the landfill had to consist of a minimum of two feet of soil capable of supporting vegetation to be graded and compacted to reduce the infiltration of rainwater, and seeding and maintenance of the cover to prevent erosion. In addition, the plan called for the installation of methane gas vents at 200 square foot intervals. Subsequent site inspections, however, revealed that the closure had not been properly completed. The existing vegetative growth over the landfill had eroded in many areas and failed to significantly impede the release of fugitive dust or landfill gas emissions. In 1981, the NJDEP issued an order to the Borough of Sayreville to cease violations regarding maintenance of the landfill. The order identified deficiencies including inadequate cover and failure to maintain grade and cover thickness. In April 1991, the New Jersey Division of Criminal Justice performed a magnetometer survey on a portion of the landfill alleged to contain buried hazardous waste materials. Based on the survey results, an estimated 30 drums were excavated from the western peninsula of the wastefill area. Analytical results detected various hazardous compounds including pentachlorophenol, para-ethyl toluene, chloroform, methyl bromide and various other compounds as well as pesticides and acids. In August 1982, the Environmental Protection Agency (EPA) visited the site to gather information for ranking it on the Federal Superfund National Priorities List (NPL). Based on the data collected from this and previous investigations, the Sayreville Landfill site was proposed for the NPL on December 1, 1982. On September 1, 1983, Sayreville Landfill was placed on the NPL.

On September 28, 1990, the Regional Administrator of EPA, Region II, issued a Record of Decision (ROD) selecting a final remedial action plan for the landfill, which is referred to in this document as Operable Unit I (OU-1). OU-1 included the construction of a NJDEP Solid Waste Cap to prevent infiltration and/or release of hazardous substances to ground water and surface water, removal and off-site treatment of buried

drums containing hazardous wastes, fencing of the site to restrict access, construction of an access road, establishment of deed restrictions, installation of storm water and passive gas management system monitoring of ground water, surface water, stream sediment, air and installation of additional ground water monitoring wells within the deep Farrington Sand aquifer to assess the impact, if any, of the landfill on this aquifer, as well as to determine ground water flow patterns.

On November 18, 1991, seven Potentially Responsible Parties (PRPs) signed an Administrative Consent Order (ACO) with the New Jersey Department of Environmental Protection to design and implement the remedial action. These PRPs formed a Site Committee which contracted with McLaren-Hart to design the remedial action. Having completed the design, the Site Committee contracted with IEM Sealand Corp. to perform the remedial action. Construction of the OU-1 remedy was completed in July 1998.

On June 30, 1997, the EPA Regional Administrator signed an Explanation of Significant Difference (ESD) which modified the original remedy selected in the 1990 ROD for OU-1. The ESD documented that EPA and NJDEP, after further review of the circumstances surrounding the site, including additional monitoring data, determined that installation of an additional deep well into the Farrington Sand aquifer was not necessary.

#### Highlights of Community Participation

The Remedial Investigation (RI), Baseline Risk Assessment, Ground Water Monitoring Report and the Pre-Design Report for the Sayreville Landfill, Operable Unit II (OU-II) were forwarded to the public repository in October 1997. The Proposed Plan was released to the public for comments on October 15, 1997. These documents were made available to the public for review at the designated public repositories located at the NJDEP office (Trenton, New Jersey) and the Sayreville Public Free Library (Parlin, New Jersey). The notice of availability for these documents and a public meeting notification was published in the Home News and Tribune on October 14, 1997. A public comment period on the documents was held from October 15, to November 15, 1997. The public meeting was held on October 29, 1997. At this meeting, representatives from the NJDEP presented the preferred remedy and answered questions about the site. A response to comments received during this period and the public meeting is included in the Responsiveness Summary, which is part of this ROD.

#### Scope and Role of Response Action

This ROD addresses the second of two Operable Units (OU's) at the site. The first ROD (OU-1) addresses the landfill itself. This ROD addresses the adjacent surface water, sediment and ground water. The selected remedy for Sayreville Landfill OU-II is "No Further Action with Monitoring" for the ground water and "No Further Action" for the surface water and sediments.

The selection of the OU-II remedy is based on the acceptable exposure of contaminants to humans and the ecology. This determination was made based on the following facts:

- ! According to the Human Health Risk Assessment for the site, there is no current or future risk to public health greater than the risk level of  $1 \times 10^{-6}$  or the Hazard Index of 1.0.
- ! Ground water contamination is decreasing in the perched and shallow aquifer by natural attenuation. A Classification Exception Area (CEA) will be placed on those areas of the shallow aquifer that exceed the Ground Water Cleanup Standards.
- ! No contamination was found in the deep wells that have intercepted the Farrington aquifer
- ! The reconstructed landfill cap and enhanced surface water drainage control measures, taken in accordance with the OU-I ROD, will be effective in reducing any potential leachate generation
- ! As per the OU-I ROD, the entire site will be surrounded by security fencing which restricts unauthorized entries to the site and any potential direct contact exposures.
- ! Also, in accordance with the OU-I ROD, a Deed Notice, pursuant to Public Law 1997, c 228, will be implemented in order to prevent any future activities that would potentially disturb the

landfill cap.

- ! There are no known current users of the perched and shallow ground water aquifers in this area. There are also no known plans for future use of the perched and shallow ground water aquifers in this area.
- ! Surface water samples indicate the presence of metals above the NJ surface water standards, however, there is no discernible pattern linking the landfill with the surface water contamination. Moreover, the levels that were found did not pose an elevated risk to human health.
- ! Sediment contaminant concentrations reflect ambient conditions or, conditions of the sediments in the vicinity of the Site. Therefore, the NJDEP and the EPA cannot conclude that the landfill is a source of contamination to the sediments. The results in the July 1996 Sediment Sampling Report support these findings.

#### Summary of Site Characteristics

##### A. Ground Water:

During the initial RI in February 1986, a total of twenty-one monitoring wells and three piezometers were installed and sampled to determine the type and extent of ground water contamination at the landfill. These wells resulted in the finding of three water bearing strata associated with the landfill, the perched zone within the landfill itself, the shallow aquifer, and the deep Farrington Sand aquifer. The contaminants found in the initial ground water investigation included the following: volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals and pesticides. These wells were resampled during Phase II of the investigation in October 1989. In a supplemental investigation, McLaren-Hart conducted a third round of ground water sampling in these twenty-one wells in addition to installing two more deep wells in the deep Farrington Sand aquifer (further evaluation of these two deep wells revealed that one of the wells, MW-15, was not installed in the deep Farrington Sand aquifer, but rather the water-bearing strata located above the Farrington Sand). The successive sampling events showed that the contaminant concentrations have declined over time. Concentrations of metals dropped in the shallow aquifer, for example, the concentration of cadmium in MW-1S (a shallow aquifer well) dropped from 24 parts per billion (ppb), sampled during the RI, to 5.4 ppb during the Pre-Design Phase. Shallow aquifer concentrations of VOCs also dropped, for example the concentration of chloroethane in MW-13 dropped from 7,300 ppb to 1,600 ppb (there is no NJ Ground Water Quality Standard or EPA Safe Drinking Water Act Maximum Contaminant Level for chloroethane); the concentration of total Xylenes in MW-8 and MW-9 dropped from 510 ppb to 240 ppb, and 70 ppb to 26 ppb, respectively, between 1986 and 1993 (NJ Ground Water Quality Standard is 40 ppb, EPA Safe Drinking Water Act Maximum Contaminant Level is 10,000 ppb). As a result of the most recent exceedences, a Classification Exception Area (CEA) will be implemented for the shallow aquifer. A CEA is an institutional control which documents areas in an aquifer which exceed the New Jersey Ground Water Quality Standards. The deep Farrington Sand aquifer had no contaminants that were above the NJ Ground Water Quality Standards. However, monitoring well MW-15, which was drilled into the water-bearing zone above the Farrington Sand aquifer, contained cadmium at a concentration of 5 ppb in 1993. The NJ Ground Water Quality Standard for cadmium, is 4 ppb; the EPA Safe Drinking Water Act Maximum Contaminant Level is 5 ppb. See Appendix C for ground water well locations and analytical data.

##### B. Surface Water and Sediment:

As with the initial ground water investigation, the 1986 surface water and sediment investigation indicated the presence of VOCs, SVOCs, organics, metals and pesticides. In 1994, the surface water samples showed no contamination of VOCs or SVOCs above the surface water criteria. Metals that were detected above the Federal surface water criteria (40 CFR 131.36) were Copper (164 ppb, 12 ppb criteria), Lead (5.5 ppb; 3.2 criteria), Mercury (0.3 ppb, 0.012 ppb criteria) and Zinc (410 ppb, 110 ppb criteria). Since 1994, the NJDEP has adopted a more stringent set of surface water quality criteria. These criteria were put into effect on May 6, 1994 (N.J.A.C. 7.9B). The volatile organic constituents detected in the sediment samples were sporadic and generally found at low concentrations. The inorganic and pesticide contaminants were detected in various

concentrations in both upgradient and downgradient locations, therefore, no discernable pattern could be found that could demonstrate the landfill contaminated the surface water or sediments in the South River. A subsequent Sediment Sampling Report prepared by McLaren - Hart, dated July, 1996 support these findings. See Appendix D for surface water and sediment sample locations and data obtained during the Pre-Design Phase, See Appendix E for the sediment sample locations and data obtained during the supplemental sediment sampling event.

#### C. Soil:

During the Phase I RI, soil samples were obtained for classification purposes, and for physical and chemical analyses. During the installation of the monitoring wells and piezometers, continuous split-spoon soil sampling was conducted during the drilling of five shallow wells and three deep wells. All of the split-spoons were used to classify the soils according to both the Burmeister and Unified Soil Classification System. A total of 25 soil borings were drilled and five test pits were excavated at the Sayreville Landfill Site during the RI. Metals, volatile organics, base neutral compounds and pesticides are present in the soil matrix of the wastefill. Heavy metal concentrations of antimony (23.3 ppm, 14 ppm criteria), and cadmium (3.4 ppm; 1 ppm criteria), are present, but similar to the range of concentrations normally found in New Jersey soils for these compounds. Elevated levels of volatile and semi-volatile organic contaminants were found in a soil sample obtained four feet below ground surface in the northwest toe of the wastefill. Heptachlor (290 ppm; 0.15 ppm criteria) and PCBs (96 ppm; 0.49 ppm criteria) were found 25 to 27 feet below the ground surface in a soil sample in the northern portion of the wastefill. The greatest range of contaminants, mostly semi-volatiles (1000-3700 ppm), were found in it soil sample 10 to 12 feet deep at the northwest toe of the wastefill. Since these results were sporadic, and the area will be capped to prevent any exposure to humans or the environment, it is the NJDEP's and EPA's position that capping is the appropriate remedy.

#### D. Air

Emissions to the atmosphere of volatile compounds from the Sayreville landfill consist almost exclusively of methane. The presence of methane is not unusual around landfills because it is a byproduct of the natural degradation of organic materials within the municipal waste. The presence of methane and related volatile compounds could be a potential problem if there was an excavation within the wastefill and an individual entered that excavation. Landfill gas emissions do not pose a threat to human health and the environment, unless emissions are allowed to collect in a confined space. Currently, the landfill does not require an air permit. However, a permit will be required once the new passive gas vent system is installed. The gas vent system is part of OU-1 and will be installed along with the landfill cap. The landfill cap was completed in July 1998

#### Summary of Site Risks

Based upon the results of the RI, a Baseline Risk Assessment was conducted to estimate the risks to human health and the environment associated with current site conditions under hypothetical reasonable maximum exposure scenarios. The Baseline Risk Assessment estimated the human health and ecological risks which could potentially result from the site if no further remedial actions were taken.

#### A. Human Health Risk Assessment

A four step process is utilized for assessing site-related human health risks for a reasonable maximum exposure scenario:

- ! Hazard Identification--identifies the chemicals of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration.
- ! Exposure Assessment--estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathways (e.g., ingesting contaminated well water) by which humans are potentially exposed.



- ! Toxicity Assessment--determines the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure (dose) and severity of adverse effects (response).
- ! Risk Characterization--summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk) assessment of site-related risks.

The Baseline Risk Assessment began with listing contaminants of concern in ground water, soil and sediment which would be representative of site risks, specifically because they were above background. Background was determined to be areas on the site which were not compromised by previous site activity. The contaminant list included VOCs, SVOCs, metals and pesticides as contaminants of potential concern. The following paragraphs discuss these contaminants and how they affect the remedial decisions for this site.

The baseline risk assessment evaluated the health effects which could result from exposure to contamination via dermal contact and ingestion of ground water, surface water and sediment.

The results of the Baseline Risk Assessment indicate that the surface water and sediments do not pose an unacceptable risk in terms of human health. New Jersey Statute Annotated 58:10B, et seq (S-1070) defines an acceptable cancer risk to be no greater than  $1 \times 10^{-6}$  (one additional cancer per one million persons). Current federal guidelines for acceptable exposures define an individual lifetime excess carcinogenic risk in the range  $1 \times 10^{-4}$  to  $1 \times 10^{-6}$ . Any cancer risks on the site that are above the New Jersey criteria of  $1 \times 10^{-6}$  are due to pesticides, particularly dieldrin. Several current and future onsite soil exposure pathways exceeded  $1 \times 10^{-6}$  due to dieldrin. The highest risk was  $2 \times 10^{-3}$  for future onsite residents. These cancer risks will be removed once the landfill has been properly capped and fenced along the perimeter under the requirements of the OU-1 ROD. The risk assessment also described a future scenario of on-site residents having a cancer risk of  $4 \times 10^{-1}$  through the ingestion of shallow ground water. This was the only ground water pathway exceeding a risk of  $1 \times 10^{-6}$ . This risk was due entirely to the presence of arsenic in the shallow aquifer. Arsenic was found in one well (NW-5S) at the concentration of 43 ppb and in piezometer P-1 at the concentration of 9.6 ppb. The NJ Ground Water Quality Criteria for arsenic is 8 ppb. The piezometer is located hydraulically upgradient of the landfill, therefore the arsenic contamination present in the landfill may be contributed by another source. Once the landfill cap has been installed, this well will be further monitored to determine any change in contaminant concentration.

Current state and federal guidelines for acceptable exposures for non carcinogens, are a maximum health Hazard Index of 1.0. A hazard index greater than 1.0 indicates that the exposure level exceeds the protective level for that particular chemical.

An evaluation of the results (of the risk calculations indicates that hazard indices for a current scenarios are below 1.0. For future scenarios, such as individuals living on the site, the hazard indices are all above 1.0. Adult and child on-site residents being exposed to soil have hazard indices of 5.0 and 8.0, respectively. The ground water hazard index of 1.0 should be added to each of these, resulting in a 9.0 hazard index for future children living on the site. In soil, the risk is from pesticides. In ground water, the risk is from metals. As mentioned earlier, once the landfill is capped, as required by the OU-1 ROD, any risks from soil contamination would be eliminated. Once the cap is in place, a Deed Notice will be put on the site to prevent any future intrusive activities. In addition to a Deed Notice, a Classification Exception Area will be designated for the shallow aquifer. See Appendix B for a summary of exposure pathways.

## B. Ecological Risk Assessment

In the Ecological assessment, a reasonable maximum environmental exposure is evaluated utilizing a four step process for assessing site-related ecological risks. These steps are: Problem Formulation - development of the objectives and scope of the ecological assessment, description of the site and ecosystems that may be impacted; identification of chemicals of concern. Exposure Assessment - identification of potential ecological receptors and exposure pathways; quantitative evaluation of exposure pathways; fate and transport mechanisms for contaminants. Ecological Effects Assessment - literature reviews, field studies and toxicity tests, linking contaminant concentrations to effects on ecological receptors. Risk Characterization -

measurement or estimation of both current and future adverse effects on ecological receptors.

Surface water and sediment contaminants were identified at concentrations in exceedance of screening values. In order to determine whether these concentrations reflected ambient conditions or were site-related, additional sediment sampling in Duck Creek, Pond Creek and at appropriate reference locations was recommended. Sampling was performed by McLaren-Hart during the Pre-Design phase of the landfill cap. The objective of this sampling plan was to determine whether contaminant levels identified in the resampled pre-design sampling locations fell within the range of sample data from the four reference locations. The results of this review indicated that it could not be determined that the site is the source of contaminants identified in Duck Creek, Pond Creek and the South River. This is due to the presence of many industries both upstream and downstream of the site. Therefore, no further ecological characterization was conducted.

Description of the "No Further Action with Monitoring" Remedy for the Ground Water and and "No Further Action" for Surface Water and Sediments.

The NJDEP is recommending the "No Further Action" remedy to address the surface water and sediments along with "No Further Action with Monitoring" to address the ground water, in conjunction with the closure (OU-1 remedy) of the Sayreville Landfill. The initial ground water sampling plan will be performed on a semi-annual basis for a five year period. After the results of the first two rounds of sampling are analyzed, the monitoring program may be modified to reflect altered conditions. The following are the issues which provided a basis for the selected remedies.

- ! According to the Human Health Risk Assessment for the site, there is no current or future risk to public health greater than the risk level of  $1 \times 10^{-6}$  or the Hazard Index of 1.0.
- ! Ground water contamination is decreasing in the perched and shallow aquifer by natural attenuation.
- ! No contamination was found in the deep wells that has intercepted the Farrington aquifer.
- ! The future landfill cap and enhanced surface water drainage control measures, taken in accordance with the OU-1 ROD, will be effective in reducing any potential leachate generation
- ! As per the OU-1 ROD, the entire site will be surrounded by security fencing which restricts unauthorized entries to the site and any potential direct contact exposures.
- ! Also, in accordance with the OU-I ROD, a Deed Notice will be put in place in order to prevent any future activities that would potentially disturb the landfill cap
- ! There are no known current users of the perched and shallow ground water aquifers. A Classification Exception Area will be designated for the shallow aquifer. There are also no known plan for future use of the perched and shallow ground water aquifers in the area
- ! Surface water samples indicate the presence of metals above the NJ surface water standards. However, there is no discernable pattern linking the landfill with the surface water-contamination. The levels that were found did not pose an elevated risk to human health.
- ! Sediment contaminant concentrations reflect ambient conditions or conditions of the sediments in the vicinity of the site. Therefore, the NJDEP and the EPA cannot conclude that the landfill is a source of contamination to the sediments. The results in the July 1996 Sediment Sampling Report support these findings

## Explanation of Significant Changes

There is no change from the Preferred Remedy described in the Proposed Plan and the selected remedy described in this ROD.

### ADMINISTRATIVE RECORD INDEX

SAYREVILLE LANDFILL OPERABLE UNIT II SUPERFUND SITE  
BOROUGH OF SAYREVILLE, MIDDLESEX COUNTY, NEW JERSEY

- 1) Remedial Investigation Report/Feasibility Study - B&V Waste Science and Technology Corp, March 1990.
- 2) Baseline Risk Assessment - B&V Waste Science and Technology Corp., March 1990.
- 3) Administrative Consent Order - New Jersey Department of Environmental Protection, November 1991.
- 4) Pre-Design Ground Water Investigation Report - McLaren-Hart Environmental Engineering Corp., December 1993.
- 5) Pre-Design Report - McLaren-Hart Environmental Engineering Corp., April 1994.
- 6) Proposed Plan - New Jersey Department of Environmental Protection, October 1997.
- 7) Final Sediment Sampling Report - McLaren - Hart Environmental Engineering Corp., July 1996.
- 8) Explanation of Significant Difference - New Jersey Department of Environmental Protection, June 1997.
- 9) Record of Decision for OU-I - Environmental Protection Agency, September 28, 1990
- 10) Transcript of Public Meeting, dated October 29, 1997. Transcript is Appendix F of this ROD

### RESPONSIVENESS SUMMARY

#### RECORD OF DECISION

SAYREVILLE LANDFILL OPERABLE UNIT II SUPERFUND SITE

#### OUTLINE:

This Responsiveness Summary is divided into the following sections:

- A. Overview
- B. Background on Community Involvement and Concerns
- C. Summary of Comments Received During the Public Meeting and Comment Period and Agency Responses
- D. Community Relations Activities at the Sayreville Landfill Site
- E. Transcript of Meeting

#### A. OVERVIEW

This is a summary of the public's comments and concerns regarding the Proposed Plan for the remediation of the Sayreville Landfill Operable Unit II Superfund Site and the New Jersey Department of Environmental Protection (NJDEP) responses to those comments.

The public comment period extended from October 15, 1997 through November 15, 1997 to provide interested parties the opportunity to comment on the Proposed Plan, Pre-Design Report, Ground Water Monitoring Report and other supporting documents for the Sayreville Landfill Operable Unit II Site. During the comment period, the NJDEP held a public meeting on October 29, 1997 at 7:00 PM at the Sayreville Municipal Building to discuss the results of the Proposed Plan, Pre-Design Report, Pre-Design Ground Water Investigation Report and other supporting documents.

On the basis of the information contained in the Pre-Design Report, Pre-Design Ground Water Investigation Report and other supporting documents, such as the RI and Baseline Risk Assessment, the NJDEP has selected the following remedy for the Sayreville Landfill Operable Unit II Site, "No Further Action with Monitoring" for ground water and "No Further Action" for surface water and sediment.

#### D. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS

Community interest for the Sayreville Landfill Site was generally limited. Interest intensified during a landfill "release" of solid debris on July 24, 1997. This release was a result of construction of the new landfill cap on the Sayreville Landfill. During construction of OUI on July 24, 1997, some wastefill was exposed in the northern portion of the landfill. While the waste was exposed, there were several rain events coupled with a high tide, which caused some of the wastefill to be released into the South River. The NJDEP investigated the area of the release, however, the remedial contractor had already taken corrective measures, which included the following installation of a permeable barrier across Duck Creek to prevent debris from entering the South River and the installation of soil berms around the wastefill to prevent more water from entering the wastefill area. The NJDEP directed the contractor to continue the corrective measures and to conduct monitoring during rain and high tide events. Since these corrective measures have been implemented, no subsequent releases have been reported. The landfill cap was constructed in July 1998.

#### C. SUMMARY OF COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD AND AGENCY RESPONSES

Concerns raised during the Sayreville Landfill Operable Unit II Public Meeting held on October 29, 1997 are summarized below. Only one written comment was received during the comment period, which extended from October 15, 1997 to November 15, 1997. Responses to the written comment and verbal comments received during the public meeting are indicated below.

Comment: (Written) The law firm that represents the Borough of Sayreville was concerned that there could be no future use for this land. It is the Borough's intention to use this land for possibly a driving range, recreational use or for waterfront access. Copy of letter is attached. See Appendix F.

Response: The Department may approve this type of use for the landfill, provided that any development will not breach the cap, which could form an exposure pathway. If an exposure pathway is formed, it could pose a risk to human health and the environment. Any development plan will also require a monitoring plan to ensure that there is no undue wear to the cap due to the development. The law firm was replied to by the NJDEP in a letter dated January 28, 1998. See copy of letter in Appendix F.

Comment: (Verbal) The Chairperson of the Sayreville Environmental Committee requested a tour of the site.

Response: As a follow up to this request, the Department contacted the Chairperson on two separate occasions via telephone. One was on or about November 15, 1997 the other was on December 2, 1997. The Department has also followed up with a letter dated January 29, 1998 to the Chairperson, See copy of letter in Appendix F. As a result of follow-up phone calls, the NJDEP, the Sayreville Environmental Commission, the Site Committee Representative and the remedial contractors conducted a site visit on May 29, 1998.

Comment: (Verbal) There were several questions regarding whether the contaminants in the perched zone of the landfill at the Site may contaminate the surface water and put the drinking water in jeopardy.

Response: The Department explained the capping process and how the cap will prevent rainfall from leaching into the wastefill and therefore prevent a constant source of ground water contamination. In conjunction with the impermeable cap, there are surrounding wells that will be sampled on a periodic basis to ensure that no ground water contamination is migrating to the adjacent surface water bodies.

Comment: (Verbal) An audience member questioned whether the clay layer on the landfill can be disturbed by future uses (including use as a park by the Borough of Sayreville) and therefore cause contamination in the ground water.

Response: The Department explained that any future uses would have to be consistent with all deed restrictions the Department has placed on property located at the site.

Comment: (Verbal) An audience member asked what contaminants have been found in the ground water and surface water, and at what levels.

Response: It was explained that in the perched aquifer that benzene was found along with antimony, cadmium, chromium and nickel. It was further explained to the audience that if they wanted more information on the names and concentrations of contaminants in the different environmental media, that they can review the remedial investigation and design reports that are located in the local depository

Comment: (Verbal) An audience member asked how many wells are in the Farrington Sand Area.

Response: There are two wells located in the Farrington Sand.

Comment: (Verbal) An audience member asked why there was no discussion by the state regarding the Old Bridge Sands and the geology of the Site.

Response: The Department explained that the Old Bridge Sands do not exist under the Site Only Pleistocene sediment exists above the Woodbridge Clay in this area.

Comment: (Verbal) An audience member asked what contamination was found in the sediment samples taken at the site.

Response: It was explained to the audience member that there were both organic and inorganic contaminants found in the sediment along with low levels of pesticides. Any detailed information that the audience requires is in the remedial investigation report and the site design reports, which were located in the local depository.

Comment: (Verbal) An audience member asked what are the acceptable levels of contaminants in the sediment.

Response: It was explained that there are no actual sediment criteria, however there are established guidelines, in addition to these guidelines, there are a number of steps to go through in order to determine if the concentrations of a contaminant in sediment is an actual risk. Generally most concentrations of contaminants in the sediment were below what would be considered a human health or ecological risk.

Comment: (Verbal) An audience member asked what is being done to clean up or investigate the contamination that was found upstream and downstream of the Sayreville Landfill Site when the investigation at the Sayreville Landfill was done.

Response: It was explained that several sites within this watershed are currently under Department oversight, such as Evor Phillips and CPS Madison. It was also explained to the audience member that the Department would appreciate any information on any site that isn't currently under Department oversight.

Comment: (Verbal) An audience member asked what the state approach to the contamination is in the area when ground water contamination in the area allegedly cannot be attributed to any particular site

Response: The Department's first approach is to take each site on an individual basis and try to control the source areas. As funds and resources become available and if the impact is severe enough, the Department's cleanup approach will be on a more regional basis.

Comment: (Verbal) An audience member asked whether there is an ongoing monitoring program for rivers in the state.

Response: The Department representatives were not sure as to the existence of a monitoring program for surface water bodies. It was later determined that a program does exist which performs biological monitoring every five years in the South River. In addition, biological or chemical monitoring by the local health or

environmental officials.

Comment: (Verbal) An audience member asked what the (presumably ground water) monitoring schedule is for the Site.

Response: An Operations and Maintenance Plan will be implemented after the landfill cap is constructed. Ground water sampling will be done on a semi-annual basis.

Comment: (Verbal) An audience member asked whether a no action remedy is being taken at the Site because the Site was placed on the NPL later than other Sites.

Response: It was explained that the selection of a particular remedial action at a Superfund Site has nothing to do with when the Site was placed on the NPL list. Rather, the remedy is selected by the process outlined in CERCLA, and its implementing regulations. It was also explained that private monies were being spent on the cleanup, not public funds.

Comment: (Verbal) An audience member asked how much the Borough of Sayreville would pay for future cleanup at the Site (presumably OU-II work at the Site).

Response: According to information provided to the Department, as part of the agreement among the Site Committee members (consisting of the Borough of Sayreville and several companies that signed the Administrative Consent Order (ACO)), the Borough of Sayreville has been responsible for 50% of the overall cost of the cleanup.

## 12. COMMUNITY RELATIONS ACTIVITIES AT THE SAYREVILLE LANDFILL SITE

NJDEP established information repositories at the following locations.

Sayreville Public Free Library  
1050 Washington Road  
Parlin, NJ 08859

Hours: Mon-Thurs 9:30 AM to 8:00 PM  
Fri: 9:30 A-M to 5:00 PM

New Jersey Department of Environmental Protection  
Bureau of Community Relations  
401 East State Street  
Trenton, NJ 08625  
(609) 984-3081  
Contact: Heather Swartz

NJDEP held a public commitment, period from October 15, 1997 to November 15, 1997 and a public meeting at the Borough of Sayreville Municipal Building on October 29, 1997 to discuss the Department's chosen remedy. A transcript of this meeting is provided in Appendix F.

## APPENDIX A SITE MAPS

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## APPENDIX B EXPOSURE PATHWAYS

TABLE 3-2 - SUMMARY OF EXPOSURE PATHWAYS - CURRENT LAND USE

POTENTIALLY EXPOSED POPULATION	EXPOSURE ROUTE AND POINT	MEDIUM	PATHWAY QUANTITATIVELY EVALUATED	REASON FOR SELECTION OR EXCLUSION
Residents (Offsite)	Ingestion of, direct contact with, and inhalation of contaminants from downgradient wells.	Deep Aquifer	No	No chemicals of potential concern in deep aquifer.
Residents (Offsite)	Ingestion of garden produce irrigated from downgradient wells.	Deep Aquifer	No	No chemicals of potential concern in deep aquifer.
Residents (Offsite)	Ingestion of, direct contact with, and inhalation of contaminants from downgradient wells.	Shallow Aquifer	No	No wells exist downgradient between the landfill and the south river.
Residents (Offsite)	Ingestion of garden produce irrigated from downgradient wells.	Shallow Aquifer	No	No wells exist downgradient between the landfill and the south river
Residents (Offsite)	Ingestion of, direct contact with, and inhalation of contaminants in wastefill.	Perched Water	No	No residences on wastefill
Residents (Offsite)	Incidental ingestion of, and direct contact with contaminants.	Soil	No	No residences adjacent to s where soil contamination exist.
Residents (Offsite)	Ingestion of, direct contact with, and inhalation of contaminants.	Surface Water	Yes	Potential exists for exposure to surface water
Residents (Offsite)	Incidental ingestion of, and direct contact with contaminants	Sediment	Yes	Potential exists for exposure sediment in the creeks and river.

TABLE 3-2 (CONTINUED)  
SUMMARY OF EXPOSURE PATHWAYS - CURRENT LAND USE

POTENTIALLY EXPOSED POPULATION	EXPOSURE ROUTE AND POINT	MEDIUM	PATHWAY QUANTITATIVELY EVALUATED	REASON FOR SELECTION OR EXCLUSION
Workers (Onsite)	Incidental ingestion of, and direct contact with soil, and contaminants in sewer line water.	Sewer Line	Yes	Potential exists for exposure to contaminants in sewer line and surrounding soils.
Trespassers (Onsite)	Incidental ingestion of and direct contact with contaminants.	Soil	Yes	Potential exists for exposure to contaminants in soil.
Trespassers (Onsite)	Incidental ingestion of, direct contact with, and inhalation of contaminants.	Sediment	No	All onsite sediment is buried, and offsite sediment addressed under residential population.
Trespassers (Onsite)	Incidental ingestion of and direct contact with contaminants.	Surface Water	No	Surface water addressed to a residential population.



TABLE 3-3  
SUMMARY OF EXPOSURE PATHWAYS - FUTURE LAND USE

POTENTIALLY EXPOSED POPULATION	EXPOSURE ROUTE AND POINT	MEDIUM	PATHWAY QUANTITATIVELY EVALUATED	REASON FOR SELECTION OR EXCLUSION
Residents (Onsite)	Incidental ingestion of, direct contact with, and inhalation of contaminants.	Groundwater (Deep Aquifer)	No	The deep aquifer has not been impacted by the landfill.
Residents (Onsite)	Incidental ingestion of, direct contact with, and inhalation of contaminants.	Groundwater (Shallow Aquifer)	Yes	Although is is unlikely that the site will be developed for residential use, this will be performed.
Residents (Onsite)	Incidental ingestion of, direct contact with and inhalation of	Groundwater (Waste-Fill)	No	Unlikely that a useable well could be placed in the waste fill.
Residents (Onsite)	Incidental ingestion of, and direct contact with contaminants.	Soil	Yes	Although it is unlikely that the site will be developed for residential use, this will be performed
Residents (Onsite)	Incidental ingestion of, and direct contact with contaminants.	Surface Water, Sediment and Sewer Line	No	Surface water and sediment quantitatively evaluated under current land use and sewer line inaccessible
Workers (Onsite)	Incidental ingestion of, direct contact with, and inhalation of contaminants.	Sewer Line	No	Exposure would be the same as present but with lower contaminant levels
Trespasser (Onsite)	Incidental ingestion of, direct contact with, and inhalation of contaminants.	All	No	Exposure would be the same as present but with lower contaminant levels

TABLE 3-3 (CONTINUED)  
SUMMARY OF EXPOSURE PATHWAYS - FUTURE LAND USE

POTENTIALLY EXPOSED POPULATION	EXPOSURE ROUTE AND POINT	MEDIUM	PATHWAY QUANTITATIVELY EVALUATED	REASON FOR SELECTION OR EXCLUSION
Residents (Onsite)	Incidental ingestion of, direct contact with, and inhalation of contaminants	Groundwater (Shallow Aquifer- GW-13-02)	Yes	Risk are calculated individually for this well due to inability to identify whether it is site impacted or not.

## APPENDIX C

### GROUND WATER WELL LOCATIONS AND SAMPLE RESULTS

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<IMG SCR 98138H>  
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<IMG SCR 98138J>  
<IMG SCR 98138K>  
<IMG SCR 98138L>

## APPENDIX D

### SURFACE WATER AND SEDIMENT SAMPLE LOCATIONS AND RESULTS (PRE-DESIGN PHASE)

<IMG SRC 98138M>  
<IMG SRC 98138N>  
<IMG SRC 98138O>  
<IMG SRC 98138P>  
<IMG SRC 98138Q>  
<IMG SRC 98138R>  
<IMG SRC 98138S>

## APPENDIX E

### SEDIMENT SAMPLE LOCATIONS AND RESULTS (SUPPLEMENTAL SEDIMENT SAMPLING PHASE)

<IMG SRC 98138T>  
<IMG SRC 98138U>  
<IMG SRC 98138V>  
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APPENDIX F  
COPIES OF CORRESPONDENCE  
AND MEETING TRANSCRIPT

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SITE REMEDIATION PROGRAM

PUBLIC MEETING TO DISCUSS THE PROPOSED PLAN FOR  
REMEDATION OF THE SAYREVILLE LANDFILL SUPERFUND SITE

Wednesday, October 29, 1997

7:00 p.m.

Sayreville Municipal Building  
167 Main Street  
Sayreville, New Jersey

APPEARANCES:

ROMAN LUZECKY, Section Chief, NJDEP  
ROBERT MARCOLINA, Case Manager, NJDEP  
CHARLES HARMAN, Supervising Environmental Scientist,  
McLaren Hart Corporation

1 MR. LUZECKY: My name is Roman Luzecky. I'm a Sect.  
2 Chief with the New Jersey Department of Environmental  
3 Protection.

4 UNIDENTIFIED SPEAKER: We're not used to this, because  
5 council meetings start at 7:00. They don't start at 7:30.

6 MR. LUZECKY: I'm sorry. I'm sorry for starting  
7 early. I'd like to acknowledge the presence of Councilwoman  
8 Malet and also Ms. Hanson with the Environmental Commission.

9 UNIDENTIFIED SPEAKER: How do you pronounce that?

10 MR. LUZECKY: Malet.

11 UNIDENTIFIED SPEAKER: Spelled?

12 MR. LUZECKY: M-A-L-E-T.

13 MS. MALET: I'm not a councilwoman.

14 UNIDENTIFIED SPEAKER: Committeewoman.

15 MR. LUZECKY: Committeewoman. I'm sorry, and I don't  
16 know if there are any other officials that didn't sign in.

17 UNIDENTIFIED SPEAKER: Right here. There's an  
18 official right there. Councilwoman.

19 MR. LUZECKY: Hi.

20 UNIDENTIFIED SPEAKER: Hillbeck (phonetic).

21 MR. LUZECKY: Thank you. We're here to discuss the  
22 proposed plan for the no further remedy for the off-site  
23 surface water and sediments and also for the on-site  
24 groundwater at the Sayreville Landfill Superfund Site, and this  
25 is part of the State remedial process. I'd like to remind you

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1 that we have a -- an agenda and a fact sheet that's available  
2 at the sign in desk, and a summary of the Community Relations  
3 Program. Also, a meeting evaluation form is attached, and we  
4 would appreciate it if you would fill both sides out and return  
5 it on your way out. I would also like to request that if you  
6 haven't signed in, to please do so now. We would use this list  
7 for future mailings concerning the site.

8       We're here tonight to share information with you and to  
9 receive your comments and questions, and this is part of our  
10 community involvement which is described in detail in the  
11 Community Relations Summary in the handout you received  
12 tonight. On the back of the sheet is a flow chart, and it  
13 describes the major steps in the site cleanup, and we're on  
14 step number six now which is the proposed plan for remedial  
15 action and part of the public meeting.

16       I'd also like to inform you that part of the Superfund  
17 Program has a technical assistance grant. This program is  
18 designed to provide citizen groups with grants up to \$50,000  
19 for the purpose of hiring technical advisors to help them  
20 understand and interpret site-related technical information.  
21 If you're interested in applying for a grant, please pick up a  
22 fact sheet about the program at the sign in table.

23       The floor will be open for questions and comments after the  
24 presentation. We have an audio transcriber here to record our  
25 proceedings. This is required under superfund regulations. If  
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1 you would like to speak, please come up to the microphone and  
2 identify yourself and your affiliation clearly so the  
3 transcriber can hear you. The comment period is open until  
4 November 15th, and the fact sheet gives details as to where to  
5 write if you prefer.

6 We will try to keep our presentation brief to allow  
7 sufficient time for your questions and comments. We hope that  
8 you will also limit the length of your comments so that  
9 everyone who wishes to speak has an opportunity to do so.  
10 Please hold all comments and questions until we are finished  
11 our presentation.

12 I would like to introduce Robert Marcolina, the Site  
13 Manager with the New Jersey Department of Environmental  
14 Protection. He will present a brief overview and a site  
15 history, and Chuck Harman, our consultant, he will discuss the  
16 remedial investigation and the feasibility study and present  
17 the remedial alternatives for the site.

18 I would also like to acknowledge other DEP representatives  
19 who are present tonight. Kathy Kunz, the technical  
20 coordinator, Dave Kaplan, the geologist, and Heather Schwartz,  
21 the community relations coordinator for the site, and we also  
22 have project manager from EPA, Mr. Porusnic. I'd like to turn  
23 it over now to Bob.

24 MR. MARCOLINA: Okay. Thank you Roman. Chuck just  
25 going to start the projector for us. Okay. Are we all

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1 familiar with the site where it's located?

2 UNIDENTIFIED SPEAKER: Um-hum.

3 MARCOLINA: Okay. Okay. Thank you, and as Roman  
4 said, name's Bob Marcolina, and I'm the site manager for the  
5 Sayreville Landfill, and what I want to do now is just kind of  
6 take you through a brief site history. Okay. To begin with  
7 the site began operation 1971, and operation -- landfill  
8 Operation ceased in 1977. In 1980 the landfill --okay. The  
9 landfill -- okay. In 1980 the Sayreville Landfill had to close  
10 the site. Okay? And concurrent with that there was a  
11 investigation going on with Vant Chemical which was located  
12 adjacent to the site. Vant Chemical dealt with disposal of  
13 chemicals, and what happened was the investigation bore out  
14 that there was some drums that were buried in the Sayreville  
15 Landfill. Okay.

16 In 1981 the Department issued a violation to the Borough of  
17 Sayreville for improperly closing the landfill. The reason for  
18 the violation was the cap was improperly installed. What was  
19 happening was the rain was falling on the cap, and it was being  
20 eroded away, thus exposing the land -- landfill -- wastefill,  
21 okay, and at this time criminal justice was doing a  
22 magnetometer survey on the landfill, and what that is is  
23 basically they were using a device to detect buried metals, and  
24 this survey bore out that they found buried drums on the site.  
25 The site -- these drums were excavated and sampled, and they

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1 were found to contain hazardous wastes such as toluene and  
2 chloroform.

3       Next, in 1983 the site was placed on a national priorities  
4 list. That's basically superfund. In 1986 the Department  
5 performed a remedial investigation feasibility study on the  
6 site, and basically what that is is they take analytical  
7 samples of all the environmental media. That's groundwater,  
8 surface water, soils, and sediment, and basically, that  
9 determines the nature and extent of contamination and where  
10 that contamination could've come from. As a result of this  
11 remedial investigation, 17 potentially responsible parties were  
12 directed to contribute costs to the Departments remedial  
13 investigation. Nine out of the 17 potentially responsible  
14 parties responded.

15       Next, in 1980 (sic) a record of decision was signed to  
16 install a new cap and to conduct a further investigation of  
17 surface water sediments and groundwater. In 1991 an  
18 administrative consent order was signed by seven of the nine  
19 potentially responsible parties to design and build a new cap  
20 and conduct a further investigation of surface water and  
21 sediments, and the end of this November the cap will be  
22 constructed, and at this point I'd like to introduce Chuck  
23 Harman, the project manager for McLaren Hart, and he'll give us  
24 a rundown of the design and the follow up studies.

25           MR. HARMAN: Okay. Thank you. Thank you, Bob.

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1 Really what I'm going to try to focus on here is just, you  
2 know, looking at a couple of the really -- the O-U-2 issues.  
3 We'll mention a little bit of the O-U-1 landfill itseif, but as  
4 Bob said, this is under current remediation, and the cap that  
5 is being installed is expected to be completed here some time  
6 in the very near future.

7       Again, the site has been -- was divided by the Department.  
8 You have operable unit number one, which is the landfill  
9 itself, and then operable unit two, which is groundwater at the  
10 site, surface water, and sediments that surround the landfill  
11 proper. Again, this is just kind of to reiterate some of the  
12 things that Bob mentioned. We've had a variety of  
13 investigation and design studies that have gone into the--  
14 into the site, both O-U-1 and O-U-2, two-phase remedial  
15 investigation, and F-S, some predesign studies conducted in the  
16 years '90 through '92, O-U-1 design which was approved by the  
17 State in 1996, and then -- and O-U-2 supplemental sediment  
18 sampling program that was initiated in 1996 and was some of the  
19 further technical basis for some of the decisions the  
20 Department has made regarding planned action.

21       The objective of the remedial investigation that was  
22 conducted was to define probable contaminant pathways, to  
23 determine the potential for public health, and to generate  
24 necessary data to evaluate remedial alternatives. The  
25 feasibility study -- and this is really more for both O-U-1 and  
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1 2 and dealt with all the -- the media at the site including  
2 groundwater, surface water, sediments, landfill refuse itself,  
3 and then air issues.

4       Okay. Again, bearing in mind that O-U-2 includes both  
5 groundwater at the site as well as surface water and sediments  
6 and the water areas surrounding the landfill, the site  
7 hydrology of that area -- that portion of the subsurface media  
8 which -- in which you find groundwater is -- is defined or  
9 divided into three water bearing zones. The first is what's  
10 called a perched zone. In other words, you have something  
11 that's fairly hard to penetrate, and you have water that sits  
12 on top of it. You can kind of imagine it as being a big bowl  
13 or a saucer, and the saucer is filled with a fair amount of the  
14 -- the landfill refuse. The perched zone is right in -- in the  
15 -- the base of the landfill. Under that further down you have  
16 a shallow zone which is not really in direct connection with  
17 the perched zone, and then further deep under that is the deep  
18 aquifer, and it's separated from the upper two zones by what's  
19 called a Woodbridge clay, and it's a very thick, very  
20 impermeable layer of clay which in the sense completely  
21 isolates the deep aquifer which is used for -- used as a  
22 potable water source throughout much of this portion in New  
23 Jersey from any of the upper layers. One -- one thing about  
24 these layers is that again this area is within the landfill  
25 itself. Both of these zones are generally under influence of

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1 tides and as such, you know, tend to be rather brackish.  
2 Neither one of them would be considered to be a -- a potable  
3 water quality. There is some possible interconnection between  
4 the perched zone itself -- perched zone itself and the  
5 surrounding surface water bodies.

6       Okay. The groundwater investigation. The perched zone has  
7 elevated concentrations, organic and inorganic compounds, which  
8 again is to be expected noting that it's within the landfill  
9 itself. The shallow zone has some elevated concentrations of  
10 organic and inorganic compounds, but again, this particular  
11 water bearing zone is not used for potable water sources, and  
12 then the deep potable aquifer is unimpacted.

13       Okay. Now moving into the -- the surface water and  
14 sediments that are associated with the -- the three surface  
15 water bodies around the landfill -- these areas include Pond  
16 Creek, Duck Creek which are -- Pond Creek and Duck Creek which  
17 are two small little creeks that feed into the South River  
18 which forms the major western border to the site itself -- to  
19 the landfill. As with many surface water bodies, sediments are  
20 generally the media of concern, because they're the areas that  
21 have the greatest potential to impact biological receptors or  
22 the bio that may be found in this particular area.

23       During the remedial investigation there were 11 samples  
24 from -- of sediment that were taken during phase one. Six  
25 samples were collected during phase two. During the predesign

1 Studies ten additional samples and then during the supplement  
2 sediment sampling program that was conducted in -- in 1996 we  
3 collected ten additional samples, and surface water samples  
4 were also collected throughout all these things, but again  
5 sediments tended to be more the focus, and again, this is the  
6 landfill, South River, Pond Creek, and Duck Creek, the surface  
7 water bodies that are flowing, and it's -- it's hard to see,  
8 but there -- there are little pink dots that you can hopefully  
9 see surrounding the site, and these are just some of the  
10 locations where surface water and sediment samples were  
11 collected during the various activities.

12 In addition, one set that's kind of -- was hard to see from  
13 this, but five samples were collected as far away as a mile  
14 further upstream -- half a mile -- excuse me -- about half a  
15 mile upstream from the site in the South River itself, so  
16 again, a fairly good coverage in terms of areas that are being  
17 sampled and evaluated for potential impacts from the landfill.

18 The sediment sampling results. There were concentrations  
19 of organic and inorganic contaminants identified in the  
20 vicinity of the landfill, but more importantly, there were  
21 concentrations that were identified both up -- both upstream  
22 areas of South River, Pond Creek, and Duck Creek, as well as  
23 some of the downstream areas, so in other words, if you -- in  
24 looking at this -- this particular map, there were  
25 concentrations, but in many cases concentrations were higher in

1 upstream areas, especially in South River, than they were found  
2 immediately in the vicinity of the landfill.

3       Okay. Again, as well as upstream/downstream areas, and  
4 essentially, what the con -- in evaluating the distribution fo  
5 the constituents which were found in the sediment samples, they  
6 indicated that the landfill was really not significantly  
7 contributing contamination to surface water sediment -- surface  
8 water and sediments, so in other words, again, we have this  
9 perched zone which is groundwater which is found within the  
10 landfill itself, so you have the potential for the water coming  
11 out from under the landfill, but what was found immediately  
12 around the landfill -- actually in the -- in the more open  
13 environment that you would find in these particular rivers, you  
14 were not seeing anything that -- that indicated a significant  
15 contribution from the landfill itself. So now that feeds back  
16 to Bob --

17           MR. MARCOLINA: Okay.

18           MR. FARMAN: -- so I'll let him talk a little bit  
19 about the preferred alternative.

20           MR. MARCOLINA: Okay. Thank you, Chuck. After  
21 reviewing the remedial investigation feasibility studies that  
22 the Department did back in '86 and the supplemental data that  
23 Chuck has just discussed with you, the Department in concert  
24 with EPA offered up the no further action for groundwater with  
25 monitoring and no further action for surface water and

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1 sediments. We came to these conclusions for the following  
2 reasons: (1) Based on the risk assessment there is no  
3 elevated danger to human health in the environment -- no  
4 elevated risk; (2) There is no discernable pattern linking any  
5 surface water sediment contamination with the landfill. The  
6 reason no -- no real pattern could be found is because the  
7 South River's tidally influenced, and basically, you have a  
8 washing back and forth, and it's very difficult to find where  
9 the origin of contamination is, and (B) the landfill's in close  
10 proximity to other hazardous -- not hazardous waste sites, but  
11 sites identified by the Department as contaminated such as Evor  
12 Phillips and C-P-S Madison. Therefore, it's very -- it's  
13 difficult to associate specific sediment surface water  
14 contamination with the landfill site, and please note that the  
15 sites identified again are under Department oversight.

16       Again, as Chuck had mentioned, underneath the landfill is a  
17 geological unit referred to as a Woodbridge clay in which  
18 varies between 25 and 50 feet thick, and it's pretty -- it's  
19 very impermeable, so we feel there's no danger of contamination  
20 migrating downward through the clay into the drinking water  
21 aquifer, and the only xylene that we found in that aquifer was  
22 a cadmium five milligrams per liter, and the New Jersey  
23 groundwater quality criteria for that is four, and the perched  
24 zone and shell zone aquifer had had some organic and inorganic  
25 contamination as Chuck had mentioned, however, once the cap is

1 installed this will prevent rain infiltrating it through the  
2 wastefill and contaminating those aquifers as well, and at this  
3 point I think we'll open the floor for questions, and Roman  
4 will lead that.

5           MR. LUZECKY: If you do have any comments or question,  
6 I -- if you can come up to the microphone or if you need to,  
7 and state your name and your affiliation so that the  
8 transcriber can hear you, and we'd appreciate that. I'd like  
9 to open up the floor for any questions. Yes, sir?

10           AUDIENCE MEMBER: My name is Julian Capic (phonetic).  
11 I'm a member of the environmental commission here in  
12 Sayreville, and I would be concerned about groundwater. Now,  
13 you say you have a perched area, and that perched area contains  
14 organic and inorganic compounds, and I would be concerned  
15 because you also said that there's an interconnection between  
16 the groundwater and the surface water. Now, the surface water  
17 would be the South River, and the South River is -- just  
18 upstream of South River from the area is a potential for  
19 drinking water -- several uses of that -- so if the perched  
20 zone has contaminants, there is a possibility that it would go  
21 into the surface water, contaminate the surface water, and  
22 place our drinking water in jeopardy.

23           MR. LUZECKY: Correct. That's why the alternative  
24 that we're looking -- that we're recommending is monitoring  
25 included. Where -- we looked at the cap. We feel that the cap



1 will prevent further migration of contaminants and the  
2 spreading of those contaminants from that aquifer, but we also  
3 plan to have monitoring wells positioned downstream, and if  
4 contamination is identified, we would then take a more active  
5 approach to groundwater cleanup.

6 AUDIENCE MEMBER: How often would you test that?

7 MR. LUZECKY: Well, we're looking, at some type of  
8 schedule, whether it be quarterly, four times a year, or semi-  
9 annually, twice a year. We're looking at a schedule like that  
10 initially, and then depending on what happens over two or three  
11 years of analysis may be reducing to -- reducing that sampling  
12 frequency.

13 AUDIENCE MEMBER: How about present ponding in the  
14 landfill itself? The shallow area you claim has a large clay  
15 barrier which would prevent it from going into the Farrington  
16 Sands, but that could also have ponding effect, and how would  
17 you -- how would you adjust for ponding?

18 MR. LUZECKY: Are you referring to the surface of the  
19 impoundment -- of the landfill?

20 AUDIENCE MEMBER: No, you would ponding right in the  
21 landfill itself.

22 MR. LUZECKY: Right.

23 AUDIENCE MEMBER: That liquid has to go somewhere, and  
24 if you have --

25 MR. LUZECKY: Right. Where the --

1 AUDIENCE MEMBER: If you have a clay barrier, you'll  
2 have ponding in the clay barrier.

3 MR. LUZECKY: The landfill is in a process of being  
4 regraded and capped. I don't know if you're referring to the  
5 low areas on the landfill surface. Are you referring to that  
6 or beneath the surface?

7 AUDIENCE MEMBER: Well, I'm -- I'm referring to the --  
8 beneath the surface of the perched area.

9 MR. LUZECKY: Okay. I'd have to refer that to Chuck.  
10 Do you - can you maybe respond to that?

11 MR. HARMAN: Yes, I'm not sure what he means by  
12 ponding, and Bob and I were just trying to talk about that. I  
13 mean from one standpoint I mean the whole purpose of the cap is  
14 to prevent surface -- rainfall from coming down and moving into  
15 the landfill, therefore, changing -- increasing the amount of  
16 water or creating a pond in excess of what's there won't happen  
17 again. That's the whole purpose of -- fo the landfill cap.  
18 Rainfall comes down, hits the surface barrier, and then it runs  
19 off to the sides. There will always be some tidal action that  
20 occurs just because -- because there is some interconnectivity  
21 between the South River and the -- and the landfill itself --  
22 that perched zone, but I just went through and looked real  
23 quick. Most -- there were very few constituents that were --  
24 were identified in the -- in either the South River or Pond  
25 Creek or Duck Creek during the remedial investigation and  
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1 predesign studies. The concentrations of some constituents  
2 were found, but generally, they were fairly low, so what that  
3 indicates is that there may be some things in the landfill  
4 itself, but they're not -- they're not going out into the --  
5 into the South River or the Pond and Duck Creeks, and if they  
6 are, they're not at levels that -- that would be considered to  
7 be -- to pose a risk to your human health or the environment.

8 AUDIENCE MEMBER: Well, we would be concerned of any  
9 contaminants going into the South River. We had concerns about  
10 at levels which you say we wouldn't worry about. We worry  
11 about them, because this is the water that we drink.

12 MR. HARMAN: No, I understand. I understand that.

13 AUDIENCE MEMBER: Oh, this clay -- the cap. What  
14 would that consist of?

15 MR. HARMAN: What's the --

16 AUDIENCE MEMBER: What would the cap consist of? What  
17 kind of cap are you putting over the landfill?

18 MR. HARMAN: The current cap design. What is that?

19 MR. MARCOLINA: The current cap design -- and Mr.  
20 Sullivan, I see you back there. Maybe you can help me out just  
21 a little bit -- but that entails clay and impermeable barrier  
22 and also some soil with a vegetative cover. It will be an  
23 impermeable barrier as part of the layers of this cap.

24 AUDIENCE MEMBER: And would -- would this cap be  
25 molded?

1 MR. MARCOLINA: Yes.

2 AUDIENCE MEMBER: It would?

3 MR. MARCOLINA: Yes.

4 AUDIENCE MEMBER: And it would be impermeable?

5 MR. MARCOLINA: Yes.

6 MR. LUZECKY: I believe that it's impermeability of  
7 ten to the minus six.

8 MR. MARCOLINA: Ten to the minus six.

9 AUDIENCE MEMBER: Okay. Thank you.

10 MR. LUZECKY: Thank you. Yes, sir?

11 AUDIENCE MEMBER: Excuse me.

12 MR. LUZECKY: Sure. Go ahead.

13 AUDIENCE MEMBER: There's one more question -- one  
14 more question that I would like to ask. Are the -- does the  
15 DEP look at this landfill as how clean is clean. This is a new  
16 way of looking at landfills now.

17 KR. LUZECKY: Well, we've excavated all the drums that  
18 contain hazardous waste. Presently, as far as we know, the  
19 landfill only contains solid waste, so we are capping in  
20 accordance with solid waste requirements and putting an  
21 impermeable cap on it, and we're also monitoring the  
22 groundwater to make sure that it's not impacting off site, so  
23 if you're asking would we dig up the landfill and remove it, so  
24 that would be impractical.

25 AUDIENCE MEMBER: Now, you're saying now that it would  
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1 typical municipal waste.

2 MR. LUZECKY: Correct.

3 AUDIENCE MEMBER: Okay. Thank you.

4 MR. LUZECKY: Yes, sir?

5 AUDIENCE MEMBER: My name is Nick Weber. I'm a  
6 taxpayer from Morgan. In your initial statement you made a  
7 statement that most of this was contributed to by a chemical  
8 company in the area?

9 MR. MARCOLINA: Yeah, the -- the whole thing started  
10 from an investigation from Vant Chemical, and I went there --

11 AUDIENCE MEMBER: Was there anybody else involved in  
12 this contamination of this site?

13 MR. LUZECKY: I believe there were a list of  
14 responsible parties identified. Nine of them signed an  
15 administrative consent order to do the investigation, and  
16 they're the ones that are paying for this. This is not being  
17 paid through tax dollars. The responsible parties are paying  
18 for the studies and also for the capping and the groundwater  
19 monitoring.

20 AUDIENCE MEMBER: All right, so now the area we're  
21 talking about -- however many acres it contains -- is  
22 originally a landfill -- a dump site for the Borough of  
23 Sayreville that became contaminated.

24 MR. LUZECKY: Right.

25 AUDIENCE MEMBER: What about the adjacent property to  
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1 it now? You're going to cap the landfill, but now what about  
2 the properties on either side of that? Is that going to be  
3 taken into consideration when you do this, or -- I know when I  
4 brought it up at a council meeting, they said that they were in  
5 the process of discussing it with the landowners adjacent to  
6 the landfill, and if -- if they had to, they could do a  
7 condemnation proceeding to take this land away from them so it  
8 would be incorporated into this.

9 MR. MARCOLINA: Well, I can answer part of that  
10 question. Just north of Sayreville Landfill -- I think it's  
11 north -- Insulcoustic, Cellotex (phonetic) -- that property is  
12 being investigated by the Department under ISRA which was  
13 formerly ECRA, so that's regarded as an entirely different  
14 site.

15 AUDIENCE MEMBER: Now, you have a brick works next to  
16 that, too, and Hercules owns part of that property, too.

17 MR. LUZECKY: Have we taken samples adjacent to the

18 AUDIENCE MEMBER: Landfill itself.

19 MR. LUZECKY: Sayreville Landfill to determine if we  
20 contributed off site, and is that included?

21 MR. MARCOLINA: Well, the samples -- there would be  
22 samples in that remedial investigatiou feasibility study, and  
23 that basically gave us the out -- well, we physically knew the  
24 outline of the landfill, and the RI/FS would've maybe expanded  
25 that a little bit. If the -- if there was contamination on the  
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1 edge as you say, then the landfill would've been expanded to  
2 that point.

3 AUDIENCE MEMBER: Yeah, but you can't expand it if it  
4 belongs to somebody else.

5 MR. LUZECKY: Yes, we can.

6 MR. MARCOLINA: Yes.

7 AUDIENCE MEMBER: Yeah, if you condemn the property.

8 MR. LUZECKY: Well, this is a superfund site. A  
9 superfund site doesn't have limits -- a lot and block limit.  
10 It's the extent of the contamination.

11 AUDIENCE MEMBER: All right. Now, the cap you're  
12 talking about putting on top of the landfill.

13 MR. MARCOLINA: It's going to be finished the end of  
14 November.

15 AUDIENCE MEMBER: All right, so now this landfill was  
16 stable to the capping. Right?

17 MR. MARCOLINA: Well, we had some --

18 AUDIENCE MEMBER: More or less?

19 MR. MARCOLINA: More or less, but we had some problems  
20 with erosion from rainfall, and that was exposing some of the  
21 landfill which made us put in a new cap to begin with.

22 AUDIENCE MEMBER: Now, once you start in on the area,  
23 and you bring equipment in there and start moving the landfill  
24 products around, you're disturbing it. Now you're causing more  
25 contamination? Yes or no?

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1 MR. MARCOLINA: No.

2 AUDIENCE MEMBER: No?

3 MR. MARCOLINA: No, we don't think so, because we're  
4 actually bringing everything together, mounding it, adding a  
5 much better cap to the site --

6 AUDIENCE MEMBER: Yeah, but this is a solid floor. If  
7 I bring a bulldozer in here and scrape up this floor, I'm  
8 creating dust. Now, I disturbed the area that's been stable.

9 MR. KAPLAN: They're not disturbing the bottom of the  
10 landfill. They're just working on the top.

11 AUDIENCE MEMBER: I'm not talking about the bottom of  
12 the landfill the bottom of the landfill I'm going to get to  
13 in another question.

14 MR. LUZECKY: Well, I don't have the details of the  
15 methods of construction, however, as they approach the  
16 landfill, they could be placing the cover material in front of  
17 the bulldozers as they're moving forward limiting or minimizing  
18 the -- the disturbance to the existing cap.

19 AUDIENCE MEMBER: And the cap you're putting on the  
20 landfill, to what depth is the cap.

21 MR. LUZECKY: Do you have the cap design details?

22 MR. MARCOLINA: Well, I have the reports with me, but  
23 I could certainly make them available to you.

24 AUDIENCE MEMBER: No, I mean from ground level how far  
25 down will you be capping?

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1 MR. MARCOLINA: I don't know the exact elevations.

2 MR. KAPLAN: They're not going down. They're going

3 up.

4 MR. MARCOLINA: They're going up.

5 AUDIENCE MEMBER: I know.

6 MR. KAPLAN: It's covering the top.

7 AUDIENCE MEMBER: Yeah, here's the landfill, and

8 you're capping on top of that, so I'm saying from the -- where

9 you finish your cap to the landfill itself.

10 MR. LUZECKY: Well, there's going to be a clay layer.

11 MR. MARCOLINA: There's going to be a clay layer --

12 MR. LUZECKY: And permeable liner and a soil cover.

13 AUDIENCE MEMBER: What is the liner?

14 MR. MARCOLINA: It'd be a L-D-P-E, low density

15 polyethylene. There'd be a --

16 AUDIENCE MEMBER: Is that a rubber-based liner that

17 they're using in the landfills out west?

18 MR. MARCOLINA: It's a standard -- standard material

19 that they use in landfills.

20 AUDIENCE MEMBER: Wello, because I -- the reason I'm

21 asking is because I just got through reading articles on these

22 landfills out west where they propose landfills, and they went

23 in there. They brought pans in there. They scraped the area.

24 They put a clay base down. They put the liners in there which

25 was a -- a plastic and a rubber-based liner in there, and they

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1 found out after ten-years -- only ten years that the liners  
2 were leaking and it was contaminating the area.

3 MR. KAPLAN: That's completely different from this  
4 Site. We're not putting anything on the bottom. There's  
5 already 50 feet of clay there. This is just on the top. It's  
6 not going to be covered by anything. They can see if it's  
7 being eroded, or they can repair it.

8 AUDIENCE MEMBER: No, but what I'm saying is in the  
9 future --

10 MR. KAPLAN: The only purpose of this is to prevent  
11 rainwater from getting into it.

12 AUDIENCE MEMBER: Right.

13 MR. KAPLAN: It's not going to be millions of tons of  
14 garbage sitting on top of it. There's going to be some grass,  
15 so it's going to be very hard to destroy this --

AUDIENCE MEMBER: But what I'm concerned about is --

17 MR. KAPLAN: -- similar to what you're talking about,  
18 which is definitely a possibility with a bottom liner.

19 AUDIENCE MEMBER: Right.

20 MR. KAPLAN: This is a top cap, not a bottom liner,  
21 and that --- that's why when they do the bottom liners, they  
22 make them double with leak detection systems and leachate  
23 collections. None of that is needed here, because all we're  
24 doing is letting rainwater hit the top and roll off the sides.  
25 That's all this is for.

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1 AUDIENCE MEMBER: But although it has a clay base --

2 MR. KAPLAN: It's got a 50 foot impermeable --

3 AUDIENCE MEMBER: I don't care if it's 100 foot clay

4 base---

5 MR. KAPLAN: Well --

6 AUDIENCE MEMBER: -- water will find its own route

7 even in clay, and once that route is established --

8 MR. KAPLAN: You're --

9 AUDIENCE MEMBER: -- it will continually use that

10 route.

11 MR. KAPLAN: Okay, but here's the case. This

12 landfill's been here since 1970 or -- so it's been there for 30

13 years without any cap on it at all, and the Farrington aquifer

14 underneath has never been contaminated. We're improving what's

15 there by 1,000 percent by put an impermeable cap on on top

16 which will mean the chances of anything getting down into the

17 Farrington are even more remote, and nothing's happened in 30

18 years without any cap. We're putting a cap on --

19 AUDIENCE MEMBER: But we don't know that.

20 MR. KAPLAN: Of course, we know. We have wells

21 installed in the Farrington --

22 MR. MARCOLINA: We have wells, and we're doing

23 monitoring.

24 MR. KAPLAN: -- that we're sampling

25 MR. MARCOLINA: And we're also

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1 MR. KAPLAN: -- and they're clean.

2 MR. MARCOLINA: -- going to be doing monitoring for  
3 the next well --

4 MR. KAPLAN: Five years.

5 MR. MARCOLINA: -- for the next five years and another  
6 five-year review could be for another five years depending  
7 on --

8 AUDIENCE MEMBER: Now why I'm bringing about is the  
9 elevation of your -- your cap to the landfill itself is say in  
10 future years down the road the Borough of Sayreville decides  
11 we're going to take this land, and we're going to develop this  
12 into a park or something else like that.

13 MR. MARCOLINA: Right.

14 AUDIENCE MEMBER: Now, they bring equipment in and  
15 start grading it and -- and --

16 MR. KAPLAN: They can't do that. There has to be a  
17 design that would not interfere with the cap.

18 MR. MARCOLINA: No, it's a --

19 AUDIENCE MEMBER: It has to be above that cap.

20 MR. KAPLAN: Right.

21 MR. MARCOLINA: It's a complete deed restriction and -  
22 -

23 AUDIENCE MEMBER: Well, this is why I'm saying what is  
24 the --

25 MR. KAPLAN: They can't do anything. You can't --

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1 AUDIENCE MEMBER: -- the distance between --

2 MR. LUZECKY: It'll probably be an average of two feet

3 above the existing --

4 AUDIENCE MEMBER: Two feet is nothing.

5 MR. LUZECKY: Well, if you have an impermeable cap and

6 a liner, it's sufficient to not allow water to go through it.

7 Now, if you want to put a difference use on it for recreation

8 purposes or whatever, then you'd have to meet a design that

9 would be protective in your future development.

10 AUDIENCE MEMBER: Well, what you're telling me is now

11 your cap is going to be two feet below the ground level?

12 MR. KAPLAN: No. No. Above.

13 AUDIENCE MEMBER: Above.

14 MR. KAPLAN: Adding to the top.

15 AUDIENCE MEMBER: Yeah, from ground level to the

16 landfill it's going to be two feet.

17 MR. KAPLAN: No. No. No. On top of the landfill.

18 AUDIENCE MEMBER: Yeah.

19 MR. KAPLAN: Right.

20 MR. MARCOLINA: On top of the landfill. We're adding

21 the cap on top of the landfill.

22 MR. KAPLAN: It's got nothing to do with grounds.

23 AUDIENCE MEMBER: You're going to add two feet on top

24 of the -- on top of the cap.

25 MR. KAPLAN: Right.

1 MR. MARCOLINA: Right.

2 AUDIENCE MEMBER: But now if they come in there, and  
3 they're going to do something, and they dig down three feet --

4 MR. KAPLAN: They can't.

5 AUDIENCE MEMBER: -- they -- they penetrated your --

6 MR. MARCOLINA: No, the site's going to be deed  
7 restricted right now.

8 MR. KAPLAN: They can't do that.

9 MR. MARCOLINA: -- and if they want to develop it,  
10 that's going to have to go through a very specific

11 AUDIENCE MEMBER: Can't do what?

12 MR. KAPLAN: They do anything. Once the cap is there,  
13 they can't do anything.

14 AUDIENCE MEMBER: Are you going to be there the day  
15 they bring a bulldozer in there -- every single day?

16 MR. KAPLAN: No, of course, not.

17 AUDIENCE MEMBER: No. No. No. No. I've got 40  
18 years in this business.

19 MR. LUZECKY: Any other questions or comments? Yes,  
20 ma'am?

21 AUDIENCE MEMBER: I have one, but I want to say it  
22 from here.

23 MR. LUZECKY: Okay.

24 AUDIENCE MEMBER: Nellie Malet. I'd like to know what  
25 the time span's going to be between now and when you can build

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1 something in that area.

2 MR. LUZECKY: Well, the cap is supposed to be  
3 completed by the end of the November. If you have a proposal  
4 for doing something, you can bring that to us in December  
5 provided that it's protective, and you're not going to  
6 compromise the existing cap, we may entertain some type of  
7 improvement right after that.

8 AUDIENCE MEMBER: You're saying that you can build --  
9 after December you can build in that area?

10 MR. LUZECKY: I didn't say you can build. I said you  
11 do some other use for it. You're not going to put homes on it,  
12 but if you want to use it for a golf course or some  
13 recreational use, and you're not going to compromise the cap,  
14 you may be able to do that.

15 AUDIENCE MEMBER: After this year?

16 MR. LUZECKY: Right.

17 MR. MARCOLINA: Yes.

18 AUDIENCE MEMBER: Thank you.

19 MR. MARCOLINA: If I could just follow up on that  
20 note. I have your name and address, because I saw it.

21 AUDIENCE MEMBER: Yeah, but I've got your bicycle.  
22 That's true. I'm Bob McGough, and I'm the attorney for the  
23 Borough. Just to follow up on that, the Borough has, in fact,  
24 consistently got on record to the extent that we are looking to  
25 have some future use for the property whether it's some kind of

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1 recreational activity or a non-intrusive commercial use. We  
2 understand that it will be subject to satisfying the deed that  
3 we won't disturb the cap and so forth, but we have gone on  
4 record with DEP that that's what we will be seeking, and we do  
5 intend to follow up on that and send letter in the comment  
6 period that we're going to continue that to pursue.

7 MR. LUZECKY: Okay.

8 AUDIENCE MEMBER: Okay. Thank you.

9 MR. LUZECKY: Yes, ma'am?

10 AUDIENCE MEMBER: Okay. Can I do it from here?

11 MR. LUZECKY: Sure.

12 AUDIENCE MEMBER: Rosalyn McBride.

13 TRANSCRIBER: Just keep your voice up.

14 AUDIENCE MEMBER: Rosalyn McBride. I'm a member of  
15 the Middlesex County Environmental Coalition. In both the  
16 groundwater and surface water, could you tell us what types of  
17 contaminants have been found and at what levels?

18 MR. KAPLAN: I've got that right here. In the  
19 landfill itself in the leachate in the last round which was  
20 done in '93 by McLaren Hart benzine was found. That was the  
21 only organic, and four metals, antimony, cadmium, chromium, and  
22 nickel, and I can give you the maximum levels if you want. The  
23 max --

24 AUDIENCE MEMBER: Will you provide me with a list of  
25 it?

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1           MR. KAPLAN: Well, it's in this report. You can --  
2 this is probably on file someplace.

3           MR. LUZECKY: This is in the library. There's a list  
4 of the repositories on your fact sheet.

5           MR. KAPLAN: That's here I got this -- this data from.  
6 That would be in the -- in the landfill, and then the -- the  
7 natural material right underneath it there's also some benzine.  
8 This is in the pleistocene aquifer which is right above the  
9 Woodbridge clay. There is some benzine, and there also is some  
10 metals -- about six different metals -- arsenic, cadmium,  
11 chromium, lead, mercury, antimony,, and nickel, and then in the  
12 Farrington aquifer, below that there was absolutely nothing.  
13 Bob discussed that there was some cadmium found, and he said it  
14 was in the Farrington aquifer, but that was found in a well  
15 that was installed --

16          MR. MARCOLINA: No, the deep --

17          MR. KAPLAN: Right, in the deep, but it wasn't in the  
18 deep aquifer.

19          MR. MARCOLINA: Oh, it wasn't?

20          MR. KAPLAN: That was from the sands in the Woodbridge  
21 clay above the aquifer, so there were no contaminants at all  
22 found in the two wells that were installed on the landfill in  
23 the Farrington sands, so that's --

24          AUDIENCE MEMBER: How many wells do you have there?  
25 Just two?

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1 MR. KAPLAN: In the Farrington Sand there are two.  
2 There are about 25 wells. Well, there were before they started  
3 constructing the cap. Some of them have been destroyed, but  
4 there were 25 wells, and when we're all done, there will be --  
5 we'll be sampling from ten wells and the different water  
6 bearing zones for the next five years to make sure that no  
7 contamination is getting into the ground.

8 AUDIENCE MEMBER: When you talked about the geology of  
9 the site, you talked about two -- there are two water bodies --  
10 two shallow aquifers and then the clay and then the Farrington  
11 Sands, there was no mention of the Old Bridge Sands.

12 MR. KAPLAN: That's not there. It doesn't exist.

13 AUDIENCE MEMBER: It's not?

14 MR. KAPLAN: No.

15 AUDIENCE MEMBER: You haven't found that there?

16 MR. KAPLAN: No.

17 AUDIENCE MEMBER: And what are the --

18 MR. KAPLAN: That would be above the Woodbridge clay,  
19 and everything above the Woodbridge clay is a pleistocene  
20 sediment. It's not really an aquifer. As Chuck said, it's  
21 very brackish, and it's not drinkable. It has too much salt in  
22 it.

23 AUDIENCE MEMBER: I find it strange --

24 MR. KAPLAN: The only --

25 AUDIENCE MEMBER: -- that there's no Old Bridge there.

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1 MR. KAPLAN: Well --

2 AUDIENCE MEMBER: We have wells in the Old Bridge  
3 sands not far from here.

4 MR. KAPLAN: Well, that -- the Old Bridge exists not  
5 -- not within a mile of this site, but there's no Old Bridge  
6 here. That's -- it was eroded away before this -- you know,  
7 maybe a million years ago -- ten million years ago.

8 AUDIENCE MEMBER: Okay. You also talked about the --  
9 the contamination in the river, but let me go back a little  
10 bit. You took sediment samples, also?

11 MR. HARMAN: Correct, yes.

12 AUDIENCE MEMBER: And what was found there?

13 MR. K: Do you have a list of --

14 MR. HARMAN: There were sediments that were both  
15 inorganic and organic constituents. The organics were -- let  
16 me see what we have. Organics -- acetone, a couple of hits of  
17 -- one small hit of benzine.

18 AUDIENCE MEMBER: What's a small hit?

19 MR. HARMAN: Five parts per billion.

20 AUDIENCE MEMBER: And acceptable levels of that would  
21 be?

22 MR. HARMAN: In sediments there are no --

23 AUDIENCE MEMBER: I know that --

24 MR. HARMAN: -- criteria.

25 AUDIENCE MEMBER: -- you only use drinking water

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1 criteria but --

2 MR. HARMAN: No, not for sediments. Sediments have  
3 their own guidelines. There are no actual regulatory criteria  
4 for evaluating sediments. You have to go through a variety of  
5 steps to evaluate whether the constituents there are considered  
6 to really be of an ecological risk, and most them -- in fact,  
7 in the guidelines themselves there are very few guidelines for  
8 organics. Most of the guidelines are for the inorganics.  
9 There are some pesticides that were identified there -- D-D-E,  
10 D-D-D which are breakdown products of D-D-T, a couple of other  
11 intasulfen (phonetic) and dieldrin, again just pesticides. In  
12 the organic -- inorganic constituents, aluminum, iron,  
13 magnesium, zinc -- not real high levels of those -- some  
14 chromium, copper in a couple places. Again, most of those  
15 generally were not above guidelines that have been published by  
16 Noah and, some of the other regulatory agencies. Again, this  
17 whole document is on file, you know, if you'd like to review  
18 it.

19 AUDIENCE MEMBER: Okay. I know I've read in your fact  
20 sheet that there's no action regarding the surface water and  
21 the sediment, and the fact that similar levels of contamination  
22 were found both upstream and downstream from the site. Has the  
23 Department considered taking any action to do any cleanup or  
24 investigation to find out what all the sources of contamination  
25 are along that route?

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1           MR. LUZECKY: Well, we have identified some other  
2 sites that are part of that drainage basin. They are under  
3 Department oversight. I think Bob mentioned a couple of --

4           AUDIENCE MEMBER: He talked about Evor Phillips and C-  
5 P-S Madison.

6           MR. LUZECKY: Right. I'm sure there's a --

7           AUDIENCE MEMBER: There are several sites that are on  
8 that roadway --

9           MR. MARCOLINA: Right.

10          AUDIENCE MEMBER: -- that are on your known and  
11 suspected list.

12          MR. LUZECKY: Right, and I can provide you with that  
13 list of all the sites that we know. If there's additional ones  
14 that you're familiar with that you can get back to us with,  
15 I could also let you know --

16          AUDIENCE MEMBER: Well, I'm familiar with your list,  
17 so I know what --

18          MR. LUZECKY: Okay.

19          AUDIENCE MEMBER: -- what's out there. Has any been  
20 -- any action been taken at any of those other suspected sites?

21          MR. LUZECKY: I don't have the exact list to tell you  
22 exactly which ones.

23          AUDIENCE MEMBER: Well, Viking Terminal is one of them  
24 that's on your list.

25          MR. LUZECKY: Which one?

1 AUDIENCE MEMBER: Viking.

2 MR. LUZECKY: That site has been -- all the  
3 contaminants have been excavated at that site. There are some  
4 residual contaminants in the groundwater on that site, but  
5 they're not contributing to the surface water based on the  
6 studies that we did in the past.

7 AUDIENCE MEMBER: And I think Sayreville Lake is  
8 listed on your list, or it was the last time I saw your list.

9 MR. LUZECKY: That one I'm not familiar with, but I'll  
10 get back to you. In fact, I'll respond with that providing you  
11 the list that we have, what kind of an oversight document, or  
12 who's handling that site, and if you have any additional ones  
13 that we've missed --

14 AUDIENCE MEMBER: Yes, we did have a most current  
15 list --

16 MR. LUZECKY: Okay.

17 AUDIENCE MEMBER: -- of -- of sites. You did mention  
18 Evor Phillips and C-P-S Madison as being a contributor. If  
19 they're not adjacent to the waterway, I know that they're  
20 having an impact on groundwater, and you feel that they are --  
21 they're having impact on the river through the groundwater? Is  
22 that --

23 MR. MARCOLINA: Well, we're just saying -- we were  
24 just using that as an example for potential of contamination.  
25 The point being is that we couldn't find -- we couldn't

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1 associate a specific contaminant with a specific site, because  
2 there's no pattern. As you said, we had sediment at some  
3 levels upgrading from the landfill and downgrading from the  
4 landfill, and coupled with the fact that Sayreville Landfill is  
5 tidally influenced, we really couldn't make any direct link,  
6 and so what we're saying is we can't make the direct link  
7 because of (A) it's tidally influenced, and (B) the proximity  
8 of other known contaminated sites. Those two may not have  
9 specifically done, but I just used those examples because they  
10 were close to Sayreville Landfill.

11 AUDIENCE MEMBER: Let me ask you -- let me ask you  
12 I've been to many hearings on many different sites, and you  
13 look familiar to me, because I've been to Kinbuck, and it just  
14 appears that no matter what site the Department is looking at  
15 especially in this area, they always include that the specific  
16 site -- because you're looking with -- with tunnel vision at  
17 the one site -- that site cannot -- they cannot determine that  
18 that site is the contributor or it's just one of many. You  
19 can't attribute it here, and you can't attribute it there. You  
20 can't attribute to the site downstream or upstream, but  
21 obviously, somebody's contributing to the contamination in the  
22 river, and to say to me, "Well, we're looking at other sites,"  
23 but I'm sure when you look at those sites you're saying to  
24 someone at one of those hearings, "This site, you know, cannot  
25 -- this site's contamination cannot be attributed -- attributed

1 to the river."

2 MR. LUZECKY: Well, we're --

3 AUDIENCE MEMBER: So you know, can't there be any  
4 regional approach that the Department takes --

5 MR. LUZECKY: Yes, there can be. We're taking each  
6 site on an individual basis and trying to control the source  
7 areas, and eventually as funds and resources allow, we'll look  
8 at it at a regional basis, and when we have sufficient funds  
9 and if the impact is severe enough, I'm certain we're going to  
10 do something about it.

11 AUDIENCE MEMBER: Is there an ongoing monitoring  
12 Program for the rivers in the state? For rivers. You know, an  
13 ongoing thing where samples are continually being taken?

14 MR. LUZECKY: I'm not certain of that I'm not  
15 familiar with a program like that.

16 AUDIENCE MEMBER: Only because I know that the  
17 waterways here have been condemned for fishing.

18 MR. LUZECKY: Right. We do do an analysis of all the  
19 waterways in the state every three years. I'm not sure what  
20 the sampling schedule is. They do get reclassified. I could  
21 find out for you and get back to you on that.

22 AUDIENCE MEMBER: I'd appreciate it. Thank you.

23 MR. LUZECKY: Yes, sir?

24 AUDIENCE MEMBER: Is there any slopes in this here  
25 property, because I remember the dumps that always had a --

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1 going down in the -- into the -- from a high spot to a low  
2 spot, so I imagine that on the end there must be a slope.

3 MR. LUZECKY: The landfill is going to be regraded and  
4 capped.

5 AUDIENCE MEMBER: Yeah, on the top part, but are you  
6 going to put a retaining wall on the slopes --

7 MR. LUZECKY: No, it's going to be --

8 AUDIENCE MEMBER: -- to catch their leachate?

9 MR. LUZECKY: It's -- it's going to be graded. Okay?

10 AUDIENCE MEMBER: What I was going to ask is the --  
11 the garbage produces methane gas. Is there a decibel or any  
12 type of reading as to the amount of methane gas coming off of  
13 that right now that's going to affect the environment or the  
14 people in the area?

15 MR. MARCOLINA: We're going to have a -- as typical  
16 landfill constructioning, we'll have a methane gas ventilation  
17 system installed on that site.

18 AUDIENCE MEMBER: But there's nothing there right now?

19 MR. MARCOLINA: No, there isn't any --

20 MR. LUZECKY: But the cap's not constructed.

21 AUDIENCE MEMBER: Yeah, I'm not -- I'm not worried  
22 about the cap. I'm saying monitoring the methane gas coming  
23 off it right now. The landfill in Staten Island is not capped  
24 off yet, but they have methane monitoring units there.

25 MR. MARCOLINA: And we also did a -- as Chuck has just

1 pointed out to me, during some of the predesign studies, of  
2 course, we did a soil gas survey on that site, and we found  
3 little or negligible amount of methane gas. We did a -- and  
4 those results are in the repository.

5 MR. LUZECKY: Yes, sir?

6 AUDIENCE MEMBER: I very recently read of the new EPA  
7 study which indicated that the Raritan River, Sandy Hook area,  
8 watersheds -- those areas are contaminated, and they're  
9 becoming more contaminated, and according to the EPA this is  
10 something that we have to keep our eye on and start addressing.  
11 The thing that they said that we have to address is urban  
12 runoff. When somebody asks a question how soon could we  
13 develop this site, one of the first things that you said was,  
14 "We could use this for recreation, and you could probably build  
15 a golf course." Now, would a golf course be feasible with the  
16 South River which runs into the Raritan River, and the Raritan  
17 River runs into Sandy Hook -- would a golf course and the  
18 runoff from-all that fertilizer be a feasible development for  
19 this site?

20 MR. LUZECKY: I'm certain that certain constraints can  
21 be placed to limit the amount of fertilizer entering the South  
22 River, but not knowing the specifics of your golf course, I  
23 can't answer that question.

24 AUDIENCE MEMBER: Just the idea of putting a golf  
25 course there, and just the idea of urban runoff which is

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1   contaminating our rivers is something that we don't want a site  
2   like this to be used for.

3           MR. LUZECKY: But I'm not proposing a golf course. I  
4   used that as an example.

5           AUDIENCE MEMBER: I know, and it was a poor example in  
6   my opinion.

7           MR. LUZECKY: I don't golf. I have no comment. Yes,  
8   sir?

9           AUDIENCE MEMBER: My name is Paul Tametto (phonetic)  
10   with Congressman Pallone's office. I think you said that  
11   there's going to be continued monitoring.

12          MR. LUZECKY: Yes.

13          MR. MARCOLINA: Yes.

14          MR. LUZECKY: We're going to start quarterly initial  
15   and possibly reduce that depending on the results.

16          MR. MARCOLINA: That's a superfund requirement, and  
17   then we look at that after a five-year period, and then we  
18   reevaluate it at that time.

19          AUDIENCE MEMBER: So is there any schedule at this  
20   point when those -- when it will be monitored?

21          MR. MARCOLINA: Well, we -- we're going to -- once --  
22   once the landfill cap is constructed then we'll begin the  
23   scheduling.

24          AUDIENCE MEMBER: Okay.

25          MR. LUZECKY: No, strike that. I think it's going to

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1 be semi-annually initially. Yes, ma'am?

2 AUDIENCE MEMBER: Eloise Hanson from the Environmental  
3 Commission. I have a couple of old questions, because it goes  
4 back so far. When this was put on the N-P-L list, was it  
5 considered one of the first to get on the N-P-L list? I'm  
6 wondering how -- what I'm wondering about is the comparison  
7 between how much action is being taken, how much money gets to  
8 be spent, compared to say something that came on the list 50  
9 other sites after us, because people wonder are you going to do  
10 the most for us, or are we at the end when the money's running  
11 out? That kind of -- that's what I want to know.

12 MR. LUZECKY: Well, the money being used for the site  
13 is not public monies. It's responsible party money, so the  
14 remedy isn't selected based on cost. That is one of the  
15 evaluating criteria, but it's not a major criteria. I think we  
16 list the major criteria on our fact sheet, and I don't remember  
17 them all off the top of my head, but there are nine criteria  
18 that we use, and they include meeting certain standards,  
19 protecting human health, and also being protective of the  
20 environment, so we if we meet those criteria, cost becomes a  
21 secondary factor in it, but are we getting a less protective  
22 remedy here? I don't think so to answer the question.

23 AUDIENCE MEMBER: How soon were we on the N-P-L list?  
24 How soon was it recognized as a -- as a site?

25 MR. LUZECKY: I think in 19 eight --

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1 MR. MARCOLINA: Nineteen eighty-three.

2 MR. LUZECKY: Nineteen eighty-three.

3 AUDIENCE MEMBER: Sooner than most sites in New  
4 Jersey?

5 MR. KAPLAN: Well, that's about when the N-P-L  
6 started, so it's one of the first --

7 MR. LUZECKY: Well, 1976.

8 MR. KAPLAN: Yeah, nothing was really listed a little  
9 later.

10 MR. LUZECKY: Right.

11 AUDIENCE MEMBER: Okay. Now, at the time, because  
12 there were a number of responsible parties and say a decade ago  
13 there was a lot of discussion about Sayreville, of course,  
14 being part of responsibility, okay, so of the seven is  
15 Sayreville still one of the seven responsible parties are these  
16 the outside dumpers that are the responsible --

17 MR. MARCOLINA: No, Borough of Sayreville is included  
18 in that seven.

19 AUDIENCE MEMBER: And what's our percentage of freight  
20 for this?

21 MR. MARCOLINA: I think close to -- around 50 percent  
22 I believe.

23 AUDIENCE MEMBER: Is that much? Because of what we  
24 accepted?

25 MR. MARCOLINA: Is -- that Sayreville's contributed 50

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1 percent to the overall cost of the project, I believe that's  
2 close figure. I'm not one really qualified. I mean we don't  
3 care the percentage of who contributed. Just as long as the  
4 project is paid for but --

5 MR. LUZECKY: I think that agreement was reached  
6 between the parties -- the responsible parties. They came up  
7 with the distribution of costs among themselves.

8 MR. MARCOLINA: But that's the approximate figure that  
9 I have heard through various conversations.

10 AUDIENCE MEMBER: And of the 50 percent what  
11 percentage of that was spent on studying how much more money is  
12 Sayreville expected to spend for our portion of the cleanup?

13 MR. MARCOLINA: That I don't know, ma'am. I mean the  
14 cleanup is just about complete. It'll be done by the end of  
15 this month. What's, left to do now is just the monitor -- costs  
16 of monitonring.

17 AUDIENCE MEMBER: It's just -- it's just hard to keep  
18 following newspaper articles fora couple fo decades, you know,  
19 so you have to reask all those questions. Okay. I had a  
20 question, about the -- the L-D-P-E layer. Now this is, of  
21 course, completely different than the geotextile layer that is  
22 on our asbestos site. This is more like the liner kind of  
23 material that would be say in the new phase of Edgeboro or --

24 MR. LUZECKY: Correct.

25 MR. MARCOLINA: Right.

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1           AUDIENCE MEMBER: Okay. Like that. Can I go there  
2 and watch if I want to, or should I be protected or let  
3 somebody know if I wanted to go take a look?

4           MR. LUZECKY: You can go watch, but I suggest you  
5 contact Bob so he can go with you and drive you around in a  
6 Jeep so you don't have to --

7           AUDIENCE MEMBER: No, I'm just -- I'm worried -- I  
8 will worry about airborne particles, of course. That's what  
9 I'm worried about.

10          MR. LUZECKY: Bob goes there unprotected all the time.

11          AUDIENCE MEMBER: Okay. Yes, I remember going there  
12 as a child unprotected, also, on a motorcycle, so okay.

13          MR. LUZECKY: We won't go there.

14          MR. MARCOLIKA: Well, I'm -- I'm just thinking about  
15 OSHA requirements for --

16          AUDIENCE MEMBER: That's what I'm curious about. Is  
17 there -- is there some --

18          MR. LUZECKY: During the construction activities.

19          MR. MARCOLINA: During the -- right, but I think  
20 there's -- I'm sure there's a vantage point from the other side  
21 of the river where we can look.

22          MR. LUZECKY: But, also there -- there has to be a  
23 construction trailer, a clean zone, an area where you can go,  
24 and I'm sure we can equip you with a hard hat, boots, and a  
25 coat.

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1 covering up stuff, so please, either coordinate through the  
2 town office observed through the DEP if you want to go out and  
3 see something.

4 AUDIENCE MEMBER: The other question was just a little  
5 off base already. The -- Evor Phillips is always mentioned,  
6 because it's nearby, and we're worried about the contamination,  
7 because it's across from our own well fields, and although so  
8 far nothing supposedly has come our way. Okay. I would just  
9 be curious who to contact about Evor Phillips. We have never  
10 been able to get as much information as we feel we need, and we  
11 heard so many more scare stories, and we have heard about other  
12 sites in the area, and one of the people who was most  
13 concerned --

14 MR. LUZECKY: You can contact Heather Schwartz.

15 AUDIENCE MEMBER: Okay.

16 MR. LUZECKY: She can fill you in on the details and  
17 also put you in touch with the project manager for that  
18 specific site if she can't answer any of your questions.

19 AUDIENCE MEMBER: Okay. Thank you.

20 UNIDENTIFIED SPEAKER: And her number's at the bottom  
21 of, the --

22 AUDIENCE MEMBER: Okay. Okay. Good.

23 MR. LUZECKY: Are there any other questions or  
24 comments? Yes, ma'am?

25 AUDIENCE MEMBER: Can I ask you how many truckloads of

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1 whatever you excavated out of there came out of here?

2 MR. LUZECKY: Well, how many drums? How many  
3 truckloads of -- right. There wasn't any soil. There wasn't  
4 -- no soil left the site. Everything was kind of pulled  
5 together and then capped.

6 AUDIENCE MEMBER: And how many did you take out?

7 MR. LUZECKY: The drums.

8 MR. MARCOLINA: How many -- I think it was around 22  
9 -- something like that. Somewhere around 22 drums.

10 AUDIENCE MEMBER: That's it?

11 AUDIENCE MEMBER: Twenty-two drums or 22 truckloads?

12 MR. MARCOLINA: No, 22 drums.

13 AUDIENCE MEMBER: You didn't dig a very big area did  
14 you?

15 MR. MARCOLINA: The drum that were removed were ones  
16 that had been previously identified which drove this whole  
17 cleanup. There was no effort to try to -- as you were talking  
18 before, the effort here was not to disturb things in place  
19 that were not known to be dangerous, but rather to only remove  
20 those items that had already been discovered or which were  
21 discovered in the process of trying to remove the ones that  
22 were known, and that's all that occurred.

23 AUDIENCE MEMBER: One question. When you take your  
24 water samples, now do the other -- all the other landfills all  
25 still flow into this same river. That's a fast moving river.

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1 You've got Edgeboro, you've got Kinbuck, and all these other  
2 facilities around that are contaminating the water. Is there  
3 any specific way that you're telling or monitoring what's on  
4 that landfill itself, or is this just a average of what's  
5 flowing down that river?

6 MR. LUZECKY: No, these wells that we have are on the  
7 site or adjacent to it.

8 AUDIENCE MEMBER: And they're not affected by the  
9 tidal flow?

10 MR. LUZECKY: They are affected by the tidal flow  
11 but --

12 AUDIENCE MEMBER: So in other words, anything coming  
13 out of Edgeboro or coming up the river from Kinbuck were still  
14 there from on site wells?

15 MR. KAPLAN: They're all on the Raritan River. This  
16 is on the South River, so they're downstream from this.  
17 Anything from Kinbuck or Edgeboro would not affect the water  
18 near the Sayreville Landfill.

19 AUDIENCE MEMBER: Why not?

20 MR. KAPLAN: Because they're in a different river.  
21 They're next to -- they're on the Raritan River. This is the  
22 South River.

23 AUDIENCE MEMBER: They're hooked together though.

24 MR. KAPLAN: They come together downstream from the  
25 Sayreville River. Contaminants from Edgeboro and Kinbuck can't

1 go up river to affect the Sayreville site. Everything's going  
2 down.

3 AUDIENCE MEMBER: It's a tidal river. Why couldn't it  
4 do that?

5 MR. KAPLAN: Tidal doesn't mean it's going to go.  
6 That stuff is going down the river towards Raritan Bay.

7 AUDIENCE MEMBER: Yeah.

8 MR. KAPLAN: All right.

9 AUDIENCE MEMBER: What about when it's coming in?  
10 Where is it going?

11 MR. KAPLAN: It's not coming up to Sayreville.

12 AUDIENCE MEMBER: Tide of the river is two knots. The  
13 tide take six hours. It's only two miles up to the center of  
14 Manville by my calculations.

15 MR. LUZECKY: Well, it's possible that there may be  
16 sediment deposition by this landfill, but I don't think it's  
17 affecting the well sampling from the Sayreville Landfill which  
18 was your question.

19 AUDIENCE MEMBER: No, this is what I'm saying. Is --  
20 is whatever is coming off these other sites --

21 MR. LUZECKY: Right.

22 AUDIENCE MEMBER: Not through the Edgeboro or  
23 Kinbuck --

24 MR. LUZECKY: The sediment may be depositing near the  
25 Sayreville Landfill. That's correct, but you --

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1 AUDIENCE MEMBER: And we're getting a reading from  
2 them, also.

3 MR. LUZECKY: But you were asking about the  
4 groundwater wells, and we were trying to respond to that that  
5 the sediment or the contaminants from the surface water that  
6 Edgeboro contributes to or Kinbuck contributes will not affect  
7 the wells on Sayreville, but we're not saying that the  
8 sediments would not redeposit there.

9 AUDIENCE MEMBER: So we're not really get a true,  
10 accurate reading then.

11 MR. LUZECKY: Well, that was the problem with the  
12 sediment. That's why we can't say, "Yes, this is all  
13 Sayreville sediment contamination." That's not the case. We  
14 can't say that.

15 MR. MARCOLINA: No.

16 MR. LUZECKY: Yes? Any other questions?

17 AUDIENCE MEMBER: This is another comparison. How  
18 long was Global in operation before it was closed? Before the  
19 face fell down?

20 MR. LUZECKY: I don't --

21 AUDIENCE MEMBER: I'm going to try to get some kind of  
22 sense of proportion --

23 MR. LUZECKY: Right. That one was --

24 AUDIENCE MEMBER: About 25 years.

25 MR. LUZECKY: Right.

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1 MR. MARCOLINA: Mr. Sills was the Attorney General at  
2 the time, so he can figure out all those years.

3 AUDIENCE MEMBER: Well, you can't do it by how many  
4 stories --

5 MR. MARCOLINA: Seventy-one and '77.

6 AUDIENCE MEMBER: I believe it was before '71.

7 AUDIENCE MEMBER: Well, it was a community dump.  
8 Right? How long was it a community dump in that area?

9 AUDIENCE MEMBER: Well, everybody dumped there.

10 AUDIENCE MEMBER: I'm sorry. I don't want to get off  
11 the subject.

12 MR. LUZECKY: That's okay. Any other comments or  
13 questions?

14 (No verbal response given.)

15 MR. LUZECKY: On closing I'd like to reiterate that  
16 this meeting is part of the ongoing Community Relations  
17 Outreach Program. We do have a strong commitment for two-way  
18 communication with you, and if you have not done so, please  
19 complete our meeting evaluation form, and sign our attendance  
20 sheet so we can include you in future mailings regarding this  
21 site. After all the comments are received during the public  
22 comment period, and all the comments have been considered, DEP  
23 and EPA will select an alternative. This selected remedy will  
24 be presented in a record of decision. Copies of this record of  
25 decision will be available in the same repositories listed on  
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1 the fact sheet, and that's the Sayreville Library. An  
2 announcement of the decision will be sent to everyone that is  
3 on the mailing list, and if all goes according to plan, the  
4 next time you'll hear from us is when you receive the record of  
5 decision, and we start to initiate the listing of the site, and  
6 that probably will be in about five years from now.

7 I do want to emphasize that your questions and comments are  
8 welcome throughout the remedial action process, and please  
9 direct them to Heather Schwartz, Community Relations  
10 Coordinator, and her telephone number is listed on the fact  
11 sheet, and thank you all for-coming tonight.

12 \* \* \* \* \*

13 C E R T I F I C A T I O N

14  
15 I, Patricia C. Repko, certify that the foregoing is a  
16 correct transcript to the best of my ability, from the  
17 electronic sound recording of the proceedings in the above  
18 entitled matter.

19

<IMG SRC 98138Z1>

<IMG SRC 98138Z2>

November 13, 1997

VIA FEDERAL, EXPRESS

Heather Swartz, Community Relations Coordinator  
New Jersey Department of Environmental Protection  
Bureau of Community Relations  
Sixth Floor  
West Wing  
401 East State Street  
CN-028  
Trenton, New Jersey 08625

RE: Sayreville Landfill III, Borough of Sayreville, Middlesex County, New Jersey

Dear Ms. Swartz:

Please be advised that this Firm serves as Special Counsel to the Borough of Sayreville ("the Borough" or "Sayreville"), owner of Sayreville Landfill III (the "Site"). The following is submitted in response to the New Jersey Department of Environmental Protection's (the "Department") solicitation of written comments, dated October 15, 1997, regarding the Department's recommended "No Further Action with Monitoring" remedy for groundwater, and "No Further Action" remedy for the off-site surface water and sediments proximate to the Sayreville Landfill site (the "Public Notice").

While the Borough fully concurs with the Department's conclusion that "No Further Action" regarding ground and surface waters is appropriate, this comment is submitted to reiterate the Borough's long-standing position that, upon completion of the remediation and following a suitable time thereafter for appropriate environmental testing, it is the Borough's intent to redevelop the Site for recreational and/or commercial purposes in such a manner that does not jeopardize the integrity of the impermeable cap. The Public Notice does not recognize Sayreville's intention to transform the Site into a useful property. Rather, there is ambiguous language contained within the Public Notice which could be construed to limit the Borough's ability to redevelop the Site, following implementation of the approved remedy. In particular, the Public Notice states:

As mentioned earlier, once the [L]andfill is capped, any risks from soil contamination would be eliminated. Once the cap is in place environmental use restrictions will be put on the site to prevent intrusive activities. [Emphasis supplied] [Recommendation at p. 5, column 2]

Furthermore, in a bullet point section of the Public Notice, entitle "Recommended Remedy", a provision sets forth that:

A Declaration of Environmental Restriction ["DER"] will be put in place in order to prevent any future activities that would potentially disturb the [L]andfill cap. [Emphasis supplied] [Recommendation at p. 6]

Again, the Borough submits this comment to ensure that the Department understands that it is the Borough's intention to ultimately develop Landfill III into a useful property. Indeed, the Borough is in the process of finalizing amendments to the Department's standard form of DER, for the Department's consideration, which would allow Sayreville to redevelop the Site for recreational and/or commercial purposes. This amended DER is intended to be consistent with the Borough's historical position regarding Landfill III and Sayreville's understanding of the Department's previous tacit approval of that understanding. In fact, during the public hearing phase of the Environmental Protection Agency's 1990 Record of Decision ["ROD"] for the Site, comments were raised by Sayreville concerning the potential reuse of the Site. Additionally, the Statement of Work ["SOW"], attached as Exhibit A to the executed 1991 Administrative Consent Order ["ACO"], entered into between Sayreville and NJDEP, stated that "further uses for the Site would be taken into account in

determining the [Landfill] cap design" [SOW at p. 16]. Finally, in addition to confirming the foregoing, the Department-approved Remedial Action Design Reports - Intermediate (60%), dated October 1994 95%/Draft 100%, dated March 1995; and the Final (100%), dated November 1996 -- expressly state the following:

<IMG SRC 98138Z3>

<IMG SRC 98138Z4>

<IMG SRC 98138Z5>

<IMG SRC 98138Z6>

<IMG SRC 98138Z7>



ROD FACT SHEET

SITE

Name : Sayreville Landfill  
Location/State : Borough of Sayreville, New Jersey  
EPA Region : II  
HRS Score (date): 441 (12/82)  
Site ID # : NJD 98050 5754

ROD

Date Signed: September 24, 1998  
Remedy/ies: No Action (surface water and sediment)  
No Action with Monitoring (ground water)

Operating Unit Number: OU-2  
Capital cost: \$ 0  
Construction Completion: N/A  
O & M in 1999: None  
2000: None

Present worth: \$ 0

LEAD

Remedial/Enforcement: PRP (Enforcement)  
EPA/State/PRP: State  
Primary contact: Bob Marcolina (NJDEP) (609) 633-1455  
Secondary contact: Thomas Porucznik (EPA) (212) 637-4370  
Main PRP(s): Borough of Sayreville (half of cost)  
PRP Contact: Richard Sullivan

WASTE

Type: Low level VOCs and metals  
Medium: Sediment, Surface Water, Ground water  
Origin: Landfill (OU-1) was contaminated by drums containing hazardous materials  
Est. quantity: N/A (22 Drums were found in the OU-1 Landfill)