
Division of Environmental Remediation

Record of Decision
High Acres Landfill (Inactive Portion)
Town of Perinton, Monroe County
Site Number 8-28-014

March 1999

DECLARATION STATEMENT - RECORD OF DECISION

High Acres Landfill (Inactive Portion) Inactive Hazardous Waste Site Town of Perinton, Monroe County, New York Site No. 8-28-014

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedial action for the inactive portion of the High Acres Landfill inactive hazardous waste disposal site which was chosen in accordance with the New York State Environmental Conservation Law (ECL). The remedial program selected is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300).

This decision is based upon the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the High Acres Landfill inactive hazardous waste site and upon public input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A bibliography of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened release of hazardous waste constituents from this site have been addressed by implementing several remedial response actions identified in this ROD; therefore, the site no longer represents a current or potential significant threat to public health and the environment.

Description of Selected Remedy

Based upon the results of investigations for the High Acres Landfill inactive hazardous waste site and the criteria identified for evaluation of alternatives, the NYSDEC has determined that no further actions are required. The remedial actions implemented at the site have addressed any current or potential threats to public health or the environment. The remedial actions completed to date are as follows:

- Construction of a landfill cover system;
- Construction of a leachate collection system;
- Construction of a landfill gas collection system;
- Construction of a storm water management system; and
- Implementation of a post-closure monitoring plan.

New York State Department of Health Acceptance

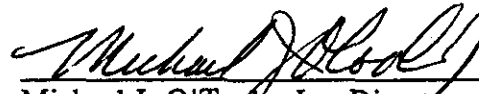
The New York State Department of Health concurs with the remedy selected for this site as being protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost-effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

Date

March 30, 1999



Michael J. O'Toole, Jr., Director
Division of Environmental Remediation

Table of Contents

SECTION 1: <u>SUMMARY OF THE RECORD OF DECISION</u>	1
SECTION 2: <u>SITE LOCATION AND DESCRIPTION</u>	1
SECTION 3: <u>SITE HISTORY</u>	2
3.1: <u>Operational/Disposal History</u>	2
3.2: <u>Remedial History</u>	2
SECTION 4: <u>SITE CONTAMINATION</u>	2
4.1: <u>Summary Site Investigations</u>	2
4.1.1 <u>Nature of Contamination</u>	4
4.1.2 <u>Site Hydrogeology</u>	4
4.1.3 <u>Extent of Contamination</u>	5
4.2: <u>Remedial Measures</u>	5
4.2.1 <u>Final Cover System</u>	6
4.2.2 <u>Storm Water Management System</u>	6
4.2.3 <u>Landfill Gas Management System</u>	7
4.2.4 <u>Western Leachate Collection System</u>	7
4.2.5 <u>East Side Leachate Collection System</u>	7
4.2.6 <u>Maintenance Shop Area Remediation</u>	7
4.2.7 <u>South Side Remedial Measures</u>	8
4.3: <u>Summary of Human Exposure Pathways</u>	8
4.4: <u>Summary of Environmental Exposure Pathways</u>	9
SECTION 5: <u>ENFORCEMENT STATUS</u>	9
SECTION 6: <u>SUMMARY OF THE SELECTED REMEDY</u>	10
SECTION 7: <u>HIGHLIGHTS OF COMMUNITY PARTICIPATION</u>	10
<u>TABLES AND FIGURES</u>	
	<u>After Page</u>
Table 1 - Nature and Extent of Contamination	5
Table 2 - Toluene Concentration in Selected Downgradient Wells	5
Figure 1 - Site Location	1
Figure 2 - Site Layout	2
Figure 3 - Remedial Measures	5
Figure 4 - Selected Monitoring Well Cluster Locations	5
<u>APPENDICES</u>	
Appendix A - Responsiveness Summary	12
Appendix B - Administrative Record	13

RECORD OF DECISION

HIGH ACRES LANDFILL (Inactive Portion)

Town of Perinton, Monroe County, New York

Site No. 8-28-014

March 1999

SECTION 1: SUMMARY OF THE RECORD OF DECISION

The New York State Department of Environmental Conservation (NYSDEC) in consultation with the New York State Department of Health (NYSDOH) has selected *No Further Action* as the remedy for the High Acres Landfill. The High Acres Landfill is listed on the Registry of Inactive Hazardous Waste Disposal Sites as a Class 3 Site (i.e., does not present a significant threat to public health or the environment - action may be deferred). As more fully described in Sections 3 and 4 of this document landfill operations prior to the enactment of hazardous waste laws resulted in the disposal of a number of hazardous wastes at the site.

During the course of NYSDEC Part 360 solid waste management permit renewal modifications in the early 1990's, several corrective measures were undertaken at the inactive portion of the High Acres Landfill (the Landfill) in response to releases of leachate to the groundwater. The remedial efforts implemented during the Landfill closure were conducted at this site to mitigate the source of contamination or exposure pathway. The remedial measures implemented were as follows: construction of a final landfill cover system; construction of a storm water management system; construction of a landfill gas management system; construction of a leachate collection system; and implementation of a post-closure monitoring plan.

Based upon the success of the above remedial measures, monitoring data from the Landfill indicated that the site does not pose a threat to human health or the environment; therefore, *No Further Action* was selected as the remedy for this site.

SECTION 2: SITE LOCATION AND DESCRIPTION

The inactive portion of the High Acres Landfill is located on Perinton Parkway in the Town of Perinton, Monroe County. The site is located at the eastern edge of Monroe County and borders the Monroe-Wayne County line. The landfill is in a rural area and the surrounding land usages are agricultural, residential, and commercial business. A Conrail right-of-way and the NYS Barge Canal are immediately to the south of the site. Public drinking water is available to all residences in the area; however, some private wells are used by area residents. The site occupies 72 acres of a 216-acre parcel. Adjacent to the 72-acre parcel, is the 68-acre operating landfill known as the "Western Expansion Landfill." This portion of the site has been in operation since December 1994 under a 6NYCRR Part 360 solid waste management permit issued by NYSDEC. Please refer to *Figure 1* for a site location map.

SECTION 3: SITE HISTORY

3.1: Operational/Disposal History

Disposal operations at the High Acres Landfill began in 1971. The landfill was initially owned and operated by Hoff Brothers Company from 1971 until 1972. The site was purchased by Waste Management, Inc. (parent company of Waste Management of New York) in 1972. At the time, the facility occupied 55 acres and included the landfill, soil mining area, maintenance shop, and support facilities. Wastes disposed included residential, commercial, and industrial wastes.

3.2: Remedial History

The inactive portion of the High Acres Landfill was listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State in 1983 as a Class 2a (i.e., a temporary classification assigned to sites that have inadequate and/or insufficient data for inclusion in any of the other classifications). Documentation from the Right-to-Know and Extended Right-to-Know studies identified hazardous waste disposal at the High Acres Landfill. Between 1983 and 1990 Waste Management of New York (WMNY) conducted several groundwater investigations at the site as part of their landfill permitting requirements. The results of these studies indicated a plume of contamination in groundwater along the southern portion of the site. In 1991, NYSDEC and NYSDOH determined the site did not pose a significant threat to public health or the environment and it was reclassified to a 3 which is defined as a site that is not a significant threat; action can be deferred.

On April 4, 1991, the Department approved WMNY's permit renewal application and issued a modified Part 360 permit to operate the High Acres Landfill. The modified permit expired in April 1996, and it included a landfill closure plan and post-closure requirements. Waste disposal operations at the High Acres Landfill ceased in 1995 at which time final closure was completed by WMNY. Since December 1994, continued disposal operations have been underway at the adjacent Western Expansion Landfill. WMNY is presently providing post-closure monitoring and maintenance of the inactive portion of the High Acres Landfill pursuant to its NYSDEC Part 360 post-closure requirements. Please refer to *Figure 2* for the current site layout.

SECTION 4: SITE CONTAMINATION

To evaluate the contamination present at the site and to evaluate alternatives to address the environmental threats posed by the presence of hazardous waste, Waste Management of New York conducted several investigations between 1983 and 1992. These studies were required during various Part 360 permit renewal processes.

4.1: Summary Site Investigations

An initial investigation was conducted from 1983 to 1984. The purpose was to evaluate the adequacy of the site's existing groundwater monitoring wells and provide some limited characterization of the

Figure 1
High Acres Landfill Site Location

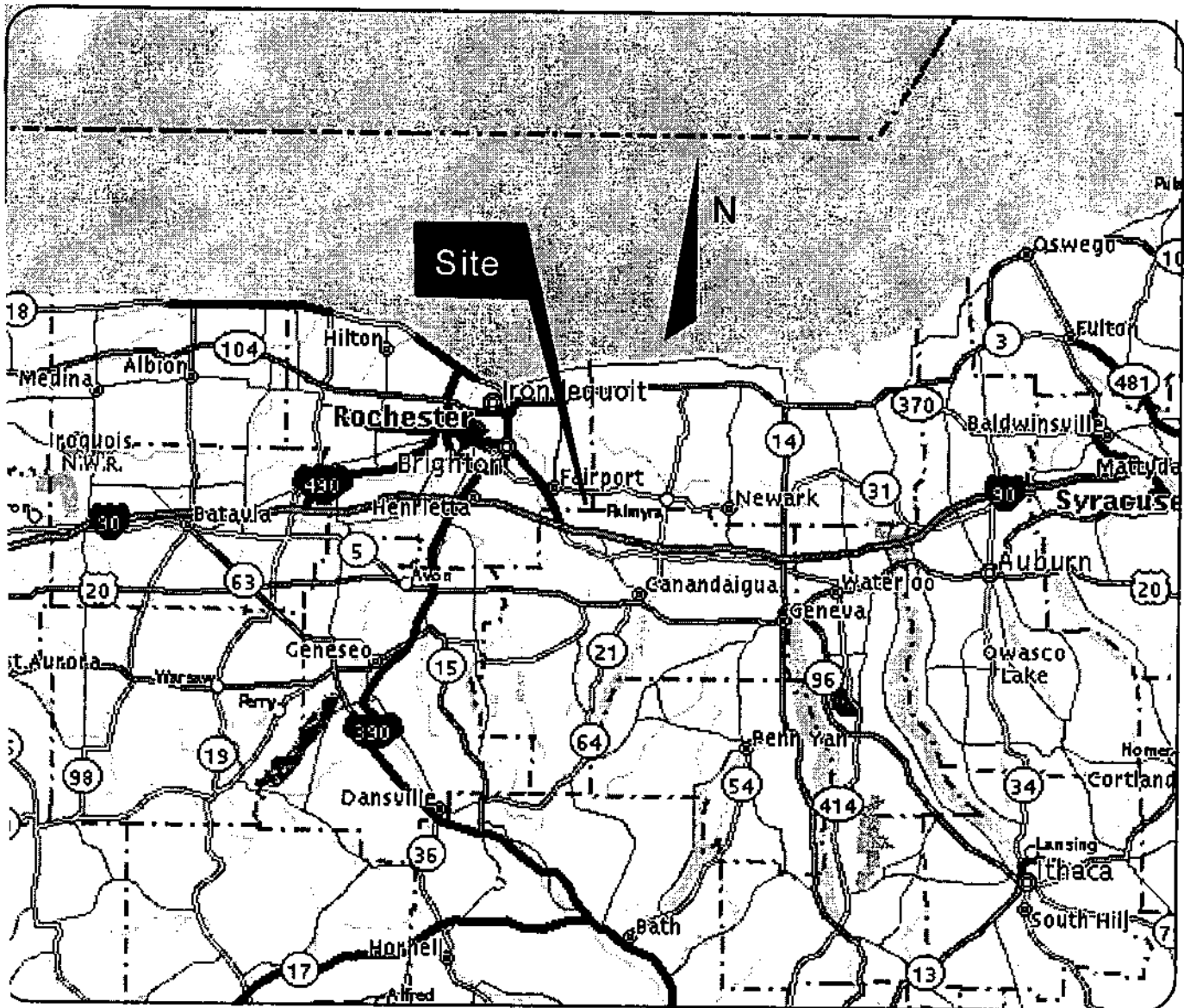
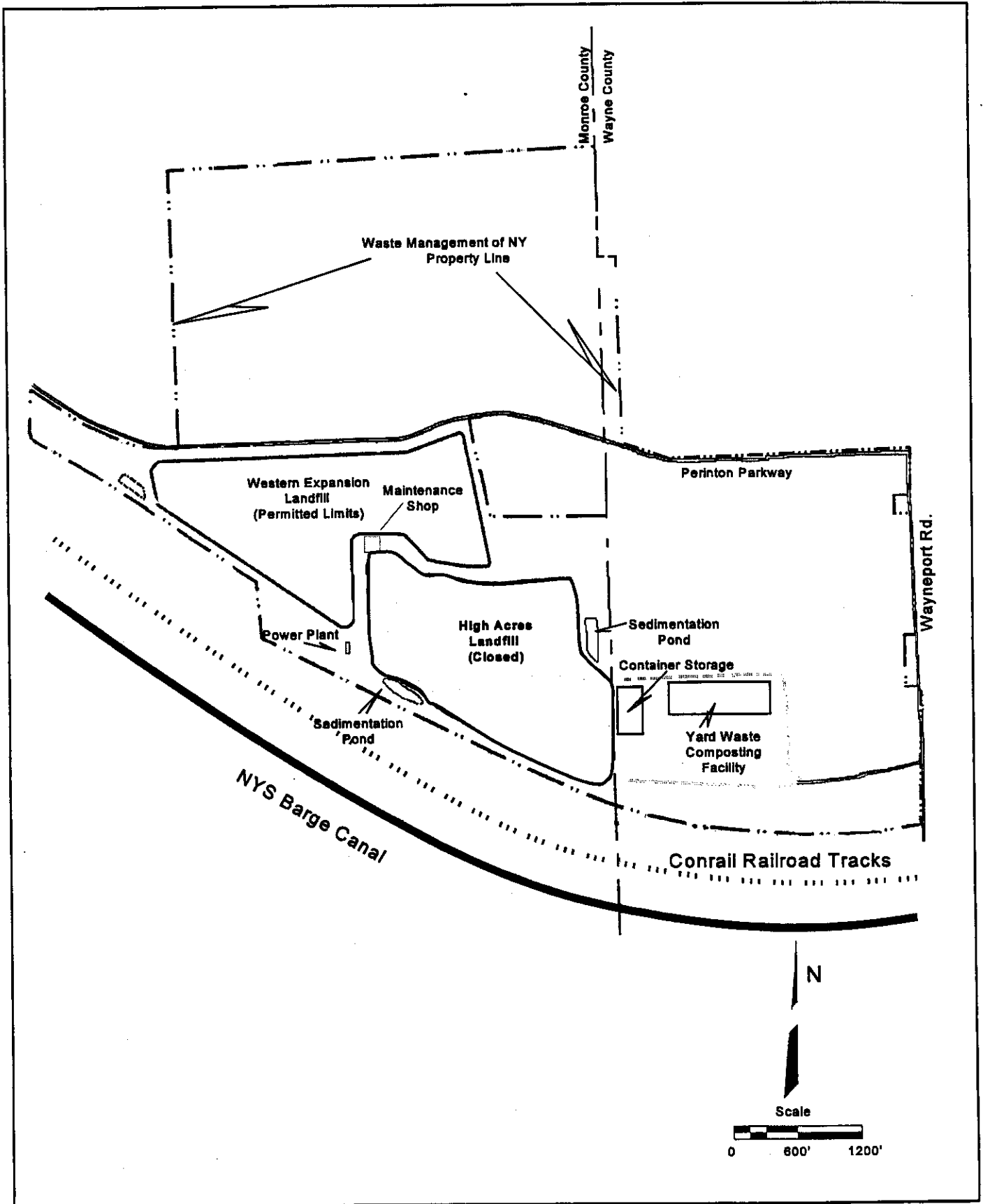


Figure 2
High Acres Landfill Site Layout



site's hydrogeology. The results are presented a report entitled Phase II Investigation Summary Report, June 1984.

A supplemental investigation was conducted in 1986 as a requirement of WMNY's permit application for expansion of the High Acres Landfill. During the investigation over 37 test pits were excavated, 22 soil borings were drilled, and 13 additional monitoring wells were installed. The investigation also incorporated use of 24 existing on-site wells and piezometers. The investigation identified two major areas of concern on the west and south sides of the High Acres Landfill. The results are presented in a report entitled Supplemental Phase II Report for the High Acres Sanitary Landfill, June 1988.

In 1990, WMNY conducted an investigation of the entire southern perimeter of the High Acres Landfill in order to identify the extent of impacts from leachate on groundwater. WMNY was required to develop mitigation measures for this area as part of completeness for an application to renew/modify their landfill operating permit. The results and design recommendations are presented in a report entitled Southside Investigation and Remedial Design Report. High Acres Landfill and Recycling Center, September 1990.

Based upon the 1990 investigation report, WMNY signed a legal agreement (Order on Consent) with NYSDEC to evaluate the leachate collection system and implement the south side remedial measures. Please refer to Section 4.2.7 for additional information on the remedial measures.

The major activities associated with these investigations included:

- Downhole geophysics to identify water bearing zones;
- Pump tests to determine aquifer characteristics;
- Installation of soil borings and monitoring wells for analyses of soils and groundwater as well as physical properties of soil and hydrogeologic conditions; and
- Excavation of several test pits to characterize the shallow geology.

To determine which media (soil, groundwater, etc.) contain contamination at levels of concern, the analytical data were compared to environmental Standards, Criteria, and Guidance values (SCGs). Groundwater, drinking water and surface water SCGs identified for the inactive portion of the High Acres Landfill site are based on NYSDEC Ambient Water Quality Standards and Guidance Values and Part 5 of the NYS Sanitary Code. For soils, NYSDEC TAGM 4046 provides soil cleanup guidelines for the protection of groundwater, background conditions, and health-based exposure scenarios. Guidance values for evaluating contamination in sediments are provided by the NYSDEC "Technical Guidance for Screening Contaminated Sediments".

Based on the results of the on-site investigation, in comparison to the SCGs and potential public health and environmental exposure routes, certain areas and media of the site required remediation. These are summarized below. More complete information can be found in the investigation reports and landfill closure certification reports.

4.1.1 Nature of Contamination:

As described in the investigation reports, many soil and groundwater samples were collected at the High Acres Landfill to characterize the nature and extent of contamination. The main category of contaminants which exceed their SCGs are volatile organic compounds (VOCs). Toluene was the main contaminant of concern and acetone, methyl isobutyl ketone, and methyl ethyl ketone were detected to a lesser extent.

4.1.2 Site Hydrogeology

The investigations conducted at the High Acres Landfill identified five main stratigraphic units which make up the site hydrogeology: overburden water-bearing zone; unweathered basal till and decomposed bedrock aquitard; fractured rock water-bearing zone; competent rock aquitard; and competent rock water-bearing zone. Groundwater flow is generally southward toward the NYS barge canal. Vertical gradients are generally downward through the overburden into fractured rock and upward from the competent rock water-bearing zone. A brief description of each unit is provided below.

Shallow overburden water-bearing zone

This unit is the upper-most water-bearing zone. Groundwater in this zone occurs under unconfined conditions in glacial outwash and weathered glacial till deposits. The till and outwash deposits are discontinuous across the High Acres Landfill. Weathered till thickness ranges from 0 to 40 feet and outwash deposit thickness ranges from 0 to 18 feet. The glacial outwash deposits occur immediately south of the glacial drumlin which existed at the site prior to soil mining operations. These deposits are currently under the southwest portion of the High Acres Landfill. Although these outwash deposits are limited in extent and thickness, it was determined to be the main migration pathway for leachate contamination off-site.

Unweathered basal till and decomposed bedrock aquitard

This unit is immediately below the overburden water-bearing zone. In general, the thickness of this unit ranges from 30 to 60 feet across the site. Due to the low vertical hydraulic conductivity of these geologic units, they are considered as one hydrostratigraphic unit and classified as an aquitard.

Fractured rock water-bearing zone

The bedrock unit beneath the site is the Vernon Shale. The upper 7 to 35 feet of this unit is significantly fractured and exhibits properties similar to a porous medium. As a result of these properties, the fractured rock is a significant water-bearing zone.

Competent rock aquitard

This unit is below the fractured bedrock zone and ranges in thickness from 10 to 60 feet. Based upon data from on-site wells and piezometers the vertical flow in this unit is upward toward the fractured rock zone.

Competent rock water-bearing zone

This unit is below the competent rock aquitard and has a typical thickness of 22 feet. It is identified by increased hydraulic conductivity reportedly due to the increase in bedding planes and dissolution of gypsum from fractures in the rock.

4.1.3 Extent of Contamination

The investigations conducted at the site identified two areas of concern. One area was upgradient of the High Acres Landfill in the vicinity of the equipment maintenance building, and the other area was along the southern boundary (downgradient) of the High Acres Landfill.

Table 1 summarizes the extent of contamination for the contaminants of concern in groundwater and compares the data with the SCGs for the Site. Chemical concentrations are reported in parts per billion (ppb). For comparison purposes, where applicable, SCGs are provided for each medium.

The following are the media which were investigated and a summary of the findings of the investigations:

Soil

Over 27 test pits and 9 soil borings were advanced in the area of the maintenance garage to evaluate the extent of affected soils in proximity to the maintenance facility. In addition, over 33 soil borings were advanced along the path of the proposed leachate collection system along the southside of the High Acres Landfill. The studies identified a refuse disposal area outside of the permitted High Acres Landfill area and identified soil contaminated with volatile organic compounds. Investigation along the southside of the High Acres Landfill identified a distinct glacial outwash deposit beneath the southwestern portion of the High Acres Landfill. This unit was identified as the source of leachate contamination to groundwater. Please refer to *Figure 3* for locations of these areas.

Groundwater

The main area of concern was the groundwater quality on the southside (downgradient) of the High Acres Landfill. In 1990, a downhole geophysical study was conducted at selected monitoring wells, and previously installed monitoring wells were sampled. The geophysical study was inconclusive. The groundwater and soil investigations identified a distinct glacial outwash deposit beneath the southwestern portion of the High Acres Landfill. This unit was identified as the source of leachate contamination to groundwater. Wells MW-20A and MW-22A identified VOC contaminants moving off-site. Please refer to *Figure 4* for the locations of these wells. The primary contaminant was toluene at levels ranging from non-detect to 690 ppb. Please refer to *Table 2* for historical concentrations of toluene in these wells.

4.2 Remedial Measures

As part of the High Acres Landfill closure, several remedial measures were conducted at the site to address environmental concerns posed by the site. Consistent with NYSDEC Technical and Administrative Guidance Memorandum #4044: "Accelerated Remedial Actions at Class 2, Non-RCRA Regulated Landfills" and United States Environmental Protection Agency (USEPA) directive #9355 0-49FS: "Presumptive Remedy for CERCLA Municipal Landfill Sites," containment is considered the presumptive remedy for landfills with mixed municipal and hazardous wastes. Such landfills typically

contain a heterogeneous mixture of municipal waste co-disposed with industrial and/or hazardous waste which usually renders removal and treatment of hazardous waste impracticable.

Presumptive Remedy Components

The USEPA directive includes the following components (containment technologies) of the presumptive remedy (as necessary based on site-specific conditions):

- ◆ engineered landfill cover;
- ◆ source area groundwater control to contain contaminant plumes;
- ◆ leachate collection and treatment;
- ◆ landfill gas collection and treatment; and
- ◆ institutional controls to supplement engineering controls.

Although the High Acres Landfill was not considered a significant threat to public health or the environment, the completed landfill closure meets the requirements of the presumptive remedy. Below is a detailed summary of the remedial actions implemented at the High Acres Landfill.

4.2.1 Final Cover System

From 1991 to 1995, WMNY installed an engineered final cover system over the inactive portion of the 72-acre High Acres Landfill. The cover system was installed in several stages and it consists of the following: a low permeability soil barrier layer having a minimum thickness of 18 inches with a maximum permeability of 1×10^{-7} cm/sec; a barrier protection soil layer having a minimum thickness of 24 inches; and a vegetated topsoil layer having a minimum thickness of 6 inches. A series of six construction certification/inspection reports were submitted to the Department for completion of each phase of the cover system construction. WMNY presently provides on-going inspection and maintenance of the final cover system in accordance with their NYSDEC Part 360 post-closure requirements. Post-closure monitoring is required for thirty years.

4.2.2 Storm Water Management System

In conjunction with construction of the final cover system, a storm water management system was completed for the entire landfill area. This system includes storm water drainage features and related erosion and sediment control measures. The system is designed to collect and control storm water flow from a 24-hour 25-year storm event.

The landfill drainage system consists of a series of cross-slope drainage collection features of riprap-lined and grass-lined drainage channels and swales, and downslope drainage conveyance features of high density polyethylene (HDPE) down chute pipes or Reno mattress-lined down chutes. These drainage features transmit the collected drainage to a series of perimeter drainage channels, and mitigate erosion of the cover system. The perimeter drainage system transmits the collected runoff into a series of two adjacent sedimentation ponds. Drainage from the ponds outfall to the adjacent

Figure 3
High Acres Landfill Remedial Measures

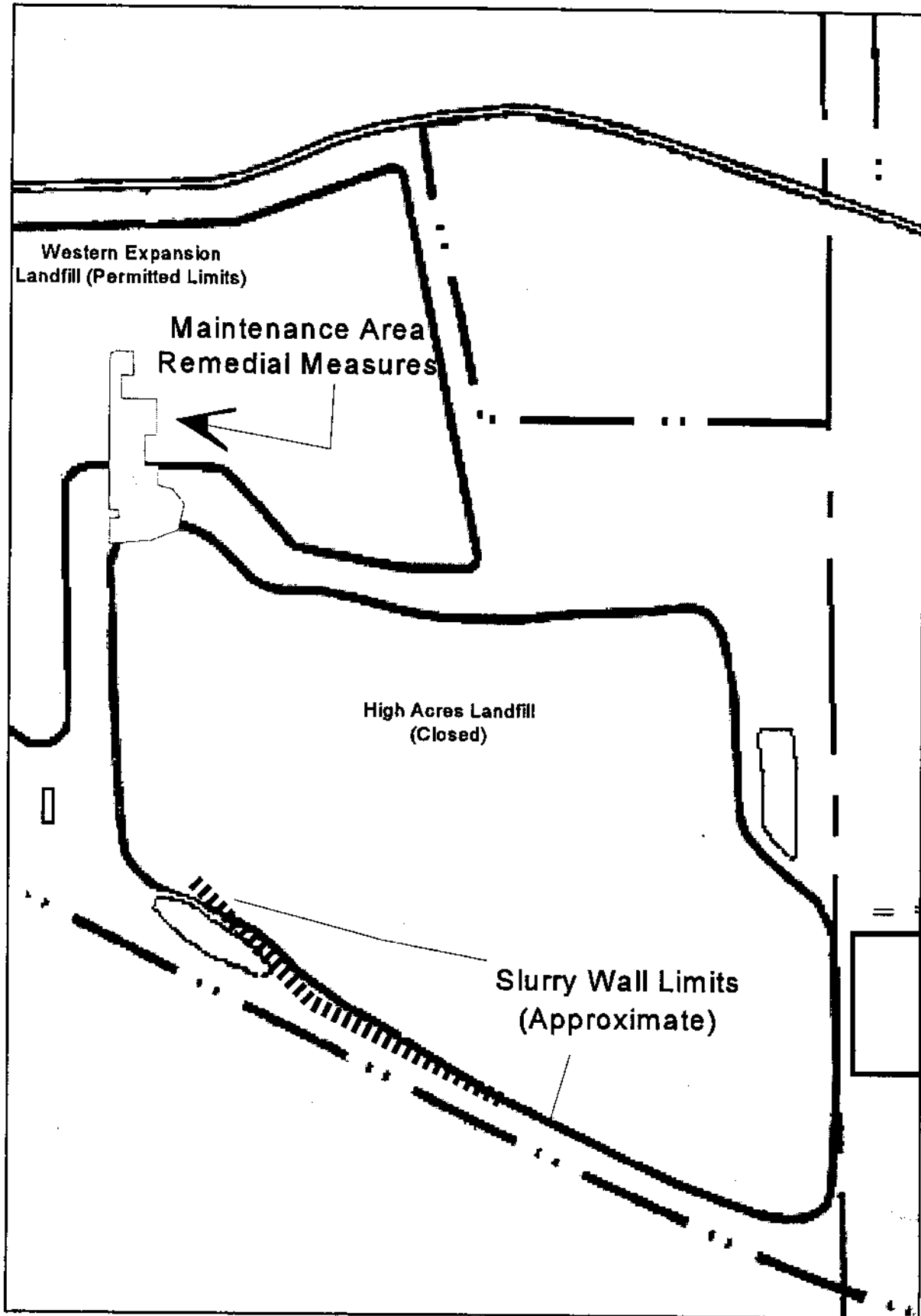


Figure 4
High Acres Landfill Selected Monitoring Well Cluster Locations

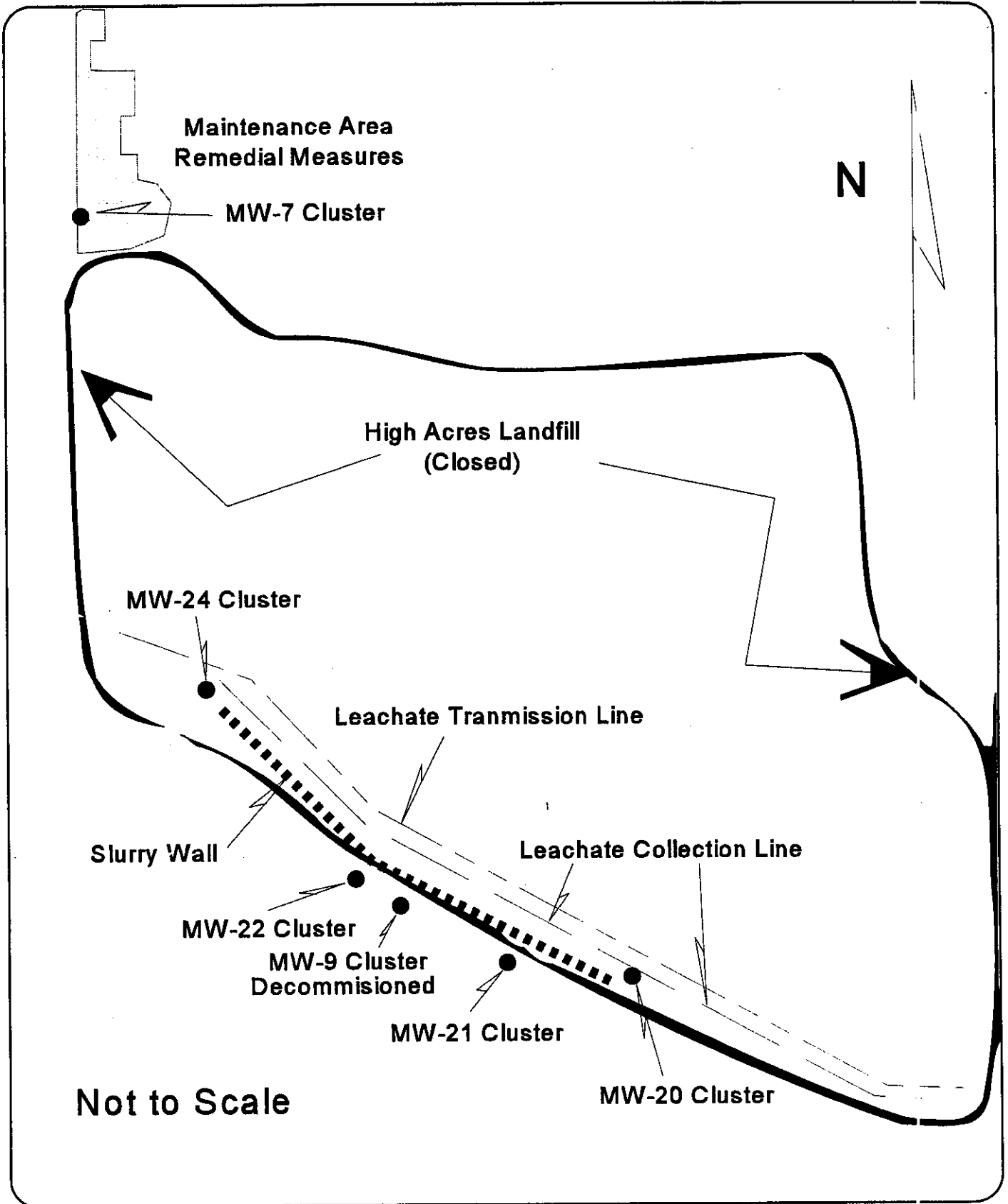


Table 1
Nature and Extent of Contamination

MEDIA	CLASS	CONTAMINANT OF CONCERN	CONCENTRATION RANGE (ppb)	SCG (ppb)
Groundwater	Volatile Organic Compounds (VOCs)	toluene	ND (3) to 690	5
		dichlorodifluoromethane	ND(5) to 68	5
		2-butanone	ND(10) to 3800	50
		methyl isobutyl ketone	ND(10) to 830	-
		acetone	ND(10) to 2500	50

ND = Non-detect

Table 2
Toluene Concentration in Selected Downgradient Wells

Well	Sampling Date								
	Before south side remedial measures					After south side remedial measures			
	11/2/92	2/2/92	2/1/94	5/9/94	8/2/94	8/4/95	11/6/96	2/5/97	2/3/98
MW-20A	240	290	260	560	690	3 U	3 U	5	3 U
MW-22A	190	250	58	37	31	3	3 U	3 U	3 U

Concentrations in parts per billion (ppb)

SCG = Standards, criteria, and guidance values

U = non-detect

MW-20A and MW-22A are downgradient of the slurry wall See Figure 4

wetland to the south of the High Acres Landfill. WMNY currently provides ongoing maintenance and inspection of the system in accordance with their NYSDEC Part 360 post-closure requirements. Post-closure monitoring is required for thirty years.

4.2.3 Landfill Gas Management System

An active landfill gas collection system was installed in the High Acres Landfill in 1991. The collection system consists of a series of vertical gas extraction wells and buried interconnecting piping. A total of 51 gas collection wells have been installed in the High Acres Landfill. The collected gas is drawn through underground piping under vacuum to the High Acres Power Production Plant. Gas condensate which accumulates in the collection system is temporarily collected in several underground holding tanks and subsequently discharged to the Monroe County sewer system for treatment. Construction, operation, and maintenance of the gas collection system and power plant is regulated under a separate Part 360 permit. Air emissions from the High Acres Landfill are also regulated by NYSDEC. The gas collection system provides beneficial use of the landfill gas and it provides effective control for migration of landfill gases off-site through the air and beneath the ground. WMNY installed 15 shallow gas monitoring probes around the perimeter of the landfill. These probes are monitored quarterly by WMNY in accordance with their NYSDEC Part 360 permit. Post-closure monitoring is required for thirty years.

4.2.4 Western Leachate Collection System

The current leachate collection system along the western edge of the High Acres Landfill was installed in 1986. The system consists of over 1,100 feet of 6-inch diameter leachate collection pipes and gravel pack installed at or below the soil/refuse interface along the entire western landfill boundary. A 60-mil (0.060-inch thick HDPE) geomembrane liner was installed in a vertical position to act as a cut-off wall for horizontal flow. The cut-off wall was installed below and to the immediate west of the leachate collection line. WMNY currently provides ongoing maintenance and inspection of the system in accordance with their NYSDEC Part 360 post-closure requirements. Post-closure monitoring is required for thirty years.

4.2.5 East Side Leachate Collection System

The eastern leachate collection system was installed in 1982 and 1983. The system consists of 2,000 feet of 6-inch diameter leachate collection pipes and gravel pack. This system initially drained to a holding tank along the southern perimeter of the landfill. In 1992, the system was modified and leachate now drains to a pump station. Collected leachate is combined with leachate from the southern collection system and it is subsequently discharged to the Monroe County sewer system for treatment. WMNY currently provides ongoing maintenance and inspection of the system in accordance with their NYSDEC Part 360 post-closure requirements. Post-closure monitoring is required for thirty years.

4.2.6 Maintenance Shop Area Remediation

Results of an investigation conducted in 1990 identified an isolated shallow refuse disposal area (outside the High Acres Landfill limits) and contaminated soils. Soils were contaminated from

previous maintenance activities with petroleum products and low-levels of ketones. A report entitled, MW-7WT and Maintenance Garage Area Investigation and Excavation Documentation, High Acres Landfill and Recycling Center, October 1990, contains details of the soil and waste removal. Approximately 33,000 cubic yards of contaminated soil and refuse were excavated from this area and disposed of within the permitted limits of the active High Acres Landfill. Confirmatory samples in the base of the excavation showed non-detectable levels of VOCs. Waste sample results indicated the excavated refuse was nonhazardous. Please refer to *Figure 3* for the area of remediation.

4.2.7 South Side Remedial Measures

Results of on-site investigations conducted by WMNY indicated a plume of groundwater contamination was migrating south from the landfill. As a result, WMNY signed a legal agreement (Order on Consent) with the Department in January 1991 to install a new leachate collection system along the southern boundary of the High Acres Landfill and to evaluate the effectiveness of the entire leachate collection system.

The south side remedial measures consisted of removal of an existing leachate collection pipe; installation of a new leachate collection system along the entire southern landfill boundary; installation of a pump station and force main line to convey collected leachate to the existing force main sewer discharge system; installation of new separate leachate transmission lines along the southern landfill boundary; installation of a 1,200 feet of slurry trench cut-off wall along the western portion of the southern landfill boundary; and placement/replacement of an engineered final cover system, where necessary, over the disturbed areas.

The slurry wall is located south of the leachate collection system and extends to a depth of 70 feet in some areas. It was designed to provide hydraulic control of groundwater flow and impede leachate migration through the glacial till/outwash deposits along the western portion of the southern boundary of the High Acres Landfill. The trench is keyed into low permeability glacial tills along the east and west ends and weathered shale and glacial tills along the bottom. The cut-off wall exhibits a maximum permeability of 1×10^{-7} cm/sec, which is about 3 orders of magnitude lower than the glacial outwash deposits. Please refer to *Figure 3* and *Figure 4* for the location of the slurry wall.

To date, groundwater monitoring data indicates the slurry wall and leachate collection system are providing adequate hydraulic control along the southern landfill boundary. On-site piezometers in the shallow overburden zone show a strong horizontal gradient towards the leachate collection system. Off-site migration of leachate via glacial outwash deposits has been controlled.

WMNY currently provides ongoing maintenance and inspection of the system in accordance with their NYSDEC Part 360 post-closure requirements. Post-closure monitoring is required for thirty years.

4.3 Summary of Human Exposure Pathways

This section describes the types of human exposures that may present added health risks to persons at or around the site.

An exposure pathway is how an individual may come into contact with a contaminant. The five elements of an exposure pathway are 1) the source of contamination; 2) the environmental media and transport mechanisms; 3) the point of exposure; 4) the route of exposure; and 5) the receptor population. These elements of an exposure pathway may be based on past, present, or future events.

The containment presumptive remedy addresses potential human exposure pathways as follows:

- Direct contact with waste is prevented by the landfill cover;
- Exposure to contaminated groundwater from the landfill is minimized by the leachate collection system and slurry wall. Long-term groundwater monitoring will be conducted to insure the off-site migration of contaminated groundwater is not occurring;
- Exposure to contaminated leachate is prevented by leachate collection and off-site treatment; and
- Exposure to landfill gas is addressed by gas collection, and generation of electricity.

Although some residents use groundwater in the area, none of these users are threatened by groundwater contamination from this site. Contaminated groundwater has not been detected off-site, and groundwater users are upgradient of the site. There are no complete exposure pathways which are known to exist at the site.

4.4 Summary of Environmental Exposure Pathways

This section summarizes the types of environmental exposures which may be presented by the site.

The major potential environmental exposure pathway is contaminated runoff, sediment, and/or surface water. The surface water body of concern at the site is an adjacent wetland to the south of the High Acres Landfill.

The NYSDEC-regulated Part 360 post-closure monitoring program contains conditions related to the management of surface water at the landfill. Two separate retention ponds adjacent to the landfill are used to collect storm water run-off from the landfill and portions of the immediately surrounding area. Pursuant to their NYSDEC Part 360 post-closure requirements, WMNY monitors the discharge from the retention ponds on a quarterly basis to verify that storm water run-off is not impacted by the landfill waste materials.

The current landfill closure and post-closure monitoring requirements have mitigated the environmental exposure pathways. Post-closure monitoring is required for thirty years.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers. All remedial activities conducted at the High Acres Landfill were regulated under WMNY's Part 360 permit. As

part of WMNY's permit renewal and modification application, the south side remedial measures were implemented under a legal agreement (Order on Consent) (NYSDEC Case# R8-0821-90-11) signed in January 1991.

The permitting history of the site by NYSDEC began in 1977 when the first solid waste disposal permit was issued. This Part 360 permit was renewed in 1979, 1983, 1987 and 1991. In 1995, the High Acres Landfill was closed under an approved plan. The landfill gas collection system and power plant are operated under a separate Part 360 permit. The western expansion landfill operation permit was issued in December 1994.

WMNY has implemented a post-closure monitoring program and provides quarterly reports to the NYSDEC. A letter of credit and standby trust account in the amount of \$12.8 million has been established by WMNY for closure and post-closure monitoring of the Western Expansion Landfill and the closed High Acres Landfill. This account is updated annually. Upon issuance of the Record of Decision by the Department, post-closure monitoring and any future remedial activities will continue to be regulated by the NYSDEC Part 360 permit.

SECTION 6: SUMMARY OF THE SELECTED REMEDY

The goals for the site are:

- Minimize direct contact with waste;
- Reduce the levels of VOC contamination in groundwater to attain NYSDEC groundwater standards (6 NYCRR Part 703) to the extent feasible considering: site conditions, currently available technology, and cost-effectiveness;
- Minimize exposure to landfill leachate; and
- Minimize exposure to landfill gas that could be released to the atmosphere or migrate in the overburden or bedrock.

The State believes that the remediation now in place, which consists of a final landfill cover system, a storm water management system, a landfill gas management system, a leachate collection system, and a post-closure monitoring plan, has achieved these goals, provided that long-term operation and maintenance of the facility continues as specified in the NYSDEC Part 360 regulations.

Based upon the results of the investigations and the remedial measures that have been performed at the site, the NYSDEC has selected *No Further Action* as the preferred remedial alternative for the site. The NYSDEC Part 360 closure and post-closure requirements will continue to be in effect.

SECTION 7: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the remedial investigation process, a number of Citizen Participation (CP) activities were undertaken in an effort to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

- A repository for documents pertaining to the site was established;
- A site mailing list was established which included nearby property owners, local political officials local media and other interested parties;
- February 22, 1999 - A public meeting announcement was sent to the parties on the site mailing list. The PRAP was made available for public comment at the local document repository;
- March 8, 1999 - A public meeting was held at the local document repository. No one from the public attended the meeting; and
- In March 1999 a Responsiveness Summary was prepared and made available to the public identifying that no comments were received during the public comment period for the PRAP.

Appendix A

Responsiveness Summary

High Acres Landfill Proposed Remedial Action Plan Perinton (C), Monroe County Site No. 8-28-014

The Proposed Remedial Action Plan (PRAP) for the High Acres Landfill, was prepared by the New York State Department of Environmental Conservation (NYSDEC) and issued to the local document repository on February 22, 1999. This Plan outlined the preferred remedial measure proposed for the remediation of the contaminated soil and sediment at the High Acres Landfill. The preferred remedy was No Further Action.

The release of the PRAP was announced via a notice to the mailing list, informing the public of the PRAP's availability.

A public meeting was held on March 8, 1999. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. No concerned citizens attended the public meeting and no comments on the proposed remedy were received.

The public comment period for the PRAP ended on March 23, 1999. *No comments were received during the public comment period.*

Appendix B Administrative Record

Southside Investigation and Remedial Design Report. High Acres Landfill and Recycling Center. Eckenfelder, Inc., September 1990.

MW-7WT and Maintenance Garage Area Investigation and Excavation Documentation. High Acres Landfill and Recycling Center. Eckenfelder, Inc., November 1990.

Request of Record of Decision. High Acres Landfill. RUST Environment and Infrastructure, July 1998.

Proposed Remedial Action Plan, High Acres Landfill (Inactive Portion), NYSDEC, February 1999.

Fact Sheet and Public Meeting Announcement. NYSDEC, February 1999.

Record of Decision, High Acres Landfill (Inactive Portion), NYSDEC, March 1999.