

4/5/05

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE I INVESTIGATION

Village of Depew

Site No. 915105

Village of Depew

Erie County



CAD 1993

Prepared for
New York State
Department of
Environmental Conservation

50 Wolf Road, Albany, New York 12233

Thomas C. Jorling, *Commissioner*

Division of Hazardous Waste Remediation

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By:

ENGINEERING-SCIENCE

ENGINEERING INVESTIGATIONS AT
INACTIVE HAZARDOUS WASTE SITES
IN THE STATE OF NEW YORK
PHASE I INVESTIGATIONS

VILLAGE OF DEPEW LANDFILL
NYS SITE NUMBER 915105
VILLAGE OF DEPEW
ERIE COUNTY
NEW YORK STATE

Prepared For

DIVISION OF SOLID AND HAZARDOUS WASTE
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
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ALBANY, NEW YORK 12233-0001

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Bureau of Environmental Management
Division of Solid Waste

VILLAGE OF DEPEW LANDFILL

TABLE OF CONTENTS

	<u>Page</u>
SECTION I EXECUTIVE SUMMARY	I-1
Site Location Map	I-4
Site Plan	I-5
SECTION II PURPOSE	II-1
SECTION III SCOPE OF WORK	III-1
SECTION IV SITE ASSESSMENT	IV-1
Site History	IV-1
Site Topography	IV-1
Site Hydrology	IV-2
Site Contamination	IV-4
Sampling Locations	IV-6
SECTION V PRELIMINARY APPLICATION OF HAZARD RANKING SYSTEM	V-1
Narrative Summary	
Site Location Map	
HRS Worksheets	
HRS Documentation Records and References	
Potential Hazardous Waste Site - Preliminary Assessment	
Potential Hazardous Waste Site - Site Inspection Report	
SECTION VI ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATIONS	VI-1
Assessment of Data Adequacy	VI-1
Phase II Work Plan	VI-1
Phase II Cost Estimate	VI-3
APPENDIX A REFERENCES	
Sources Contacted Documentation	
References	
APPENDIX B PROPOSED UPDATED NYS REGISTRY	



SECTION I
EXECUTIVE SUMMARY

This report, prepared for the New York State Department of Environmental Conservation (NYSDEC) presents the results of the Phase I investigation for the Village of Depew Landfill (NYS Site Number 915105, no EPA Site Number given) located in the Village of Depew, Erie County, New York (see Figure I-1).

SITE BACKGROUND

From approximately 1940 to 1961, approximately 10,000 tons per year of municipal wastes were disposed of in the Village of Depew landfill (ECDEP, Hazardous Waste Site Profile Report, 2/85; Domino, 12/10/85). The Village of Depew owned the landfill during the period when the landfill was operated. In 1983, the landfill was purchased by Erie County and approximately 60,000 cubic yards of municipal wastes were excavated from the landfill site and an overflow retention facility (ORF) was constructed on-site (ECDEP, Hazardous Waste Site Profile Report, 2/85; Domino, 12/10/85).

Hazardous wastes are not known to have been disposed of at the Village of Depew Landfill site (ECDEP, Hazardous Waste Site Profile Report, 2/85; Domino, 12/10/85). An inspection of the site conducted in April 1985 by the ECDEP did not find waste materials protruding from the landfill or evidence of leachate runoff at the site (Voell, 4/29/85). However, foundry sand from Dresser Industries was used as cover material for the landfill (Labensiki, 1/17/86). Foundry sands disposed of by Dresser Industries have previously been found to contain phenol (Landcaster Reclamation, 5/85; Land Reclamation, 5/85). Monitoring to determine if phenol is present on-site has not been conducted to date (Labenski, 1/17/86).

Environmental monitoring of the groundwater, surface water or soil has not been conducted at the site (NYSDEC, Registry Sheet, 1/10/85). In 1982, soil characterization work (borings) was conducted at the land-fill site as part of the assessment work for the construction of the overflow retention facility; however, the soil samples collected during the on-site drilling were not analyzed for hazardous constituents (Drill & Test, Inc., 3/83).

During the Engineering-Science and Dames & Moore site inspection conducted in April 1986, HNu meter readings were taken upwind and downwind at the site. Volatile organics were not detected on-site in concentrations exceeding background levels of 1 ppm (ES/D&M, 4/86).

ASSESSMENT

In an attempt to quantify the risk associated with this site, we applied the Hazard Ranking System (HRS) currently being used by the New York State DEC to evaluate abandoned hazardous waste sites in New York state. This system takes into account the types of wastes at the site, receptors and transport routes to apply a numerical ranking of the site. As stated in 40CFR Subpart H Section 300.81, the HRS scoring system was developed to be used in evaluating the relative potential of uncontrolled hazardous disposal substances to cause health or safety problems or ecological or environmental damage. It is assumed by the EPA that a uniform application of the ranking system in each state will permit EPA to identify those releases of hazardous substances that pose the greatest hazard to humans or the environment.

Under the HRS, three numerical scores are computed for each site to express the relative risk or danger from the site, taking into account the population at risk; the hazardous potential of the substances at a facility; the potential for contamination of drinking water supplies; for direct human contact; and for destruction of sensitive ecological systems and other appropriate factors. The three scores are:

- o S_M reflects the potential for harm to humans or the environment from migration of a hazardous substance away from the facility by routes involving groundwater, surface water or air. It is a composite of separate scores for each of the three routes (S_{GW} = groundwater route score, S_{SW} = surface water route score, and S_A = air route score).
- o S_{FE} reflects the potential for harm from substances that can explode or cause fires.
- o S_{DC} reflects the potential for harm from direct contact with hazardous substances at the facility (i.e., no migration need be involved).

The preliminary HRS score is:

S_M	=	0	S_A	=	0
S_{GW}	=	0	S_{FE}	=	0
S_{SW}	=	0	S_{DC}	=	0

RECOMMENDATIONS

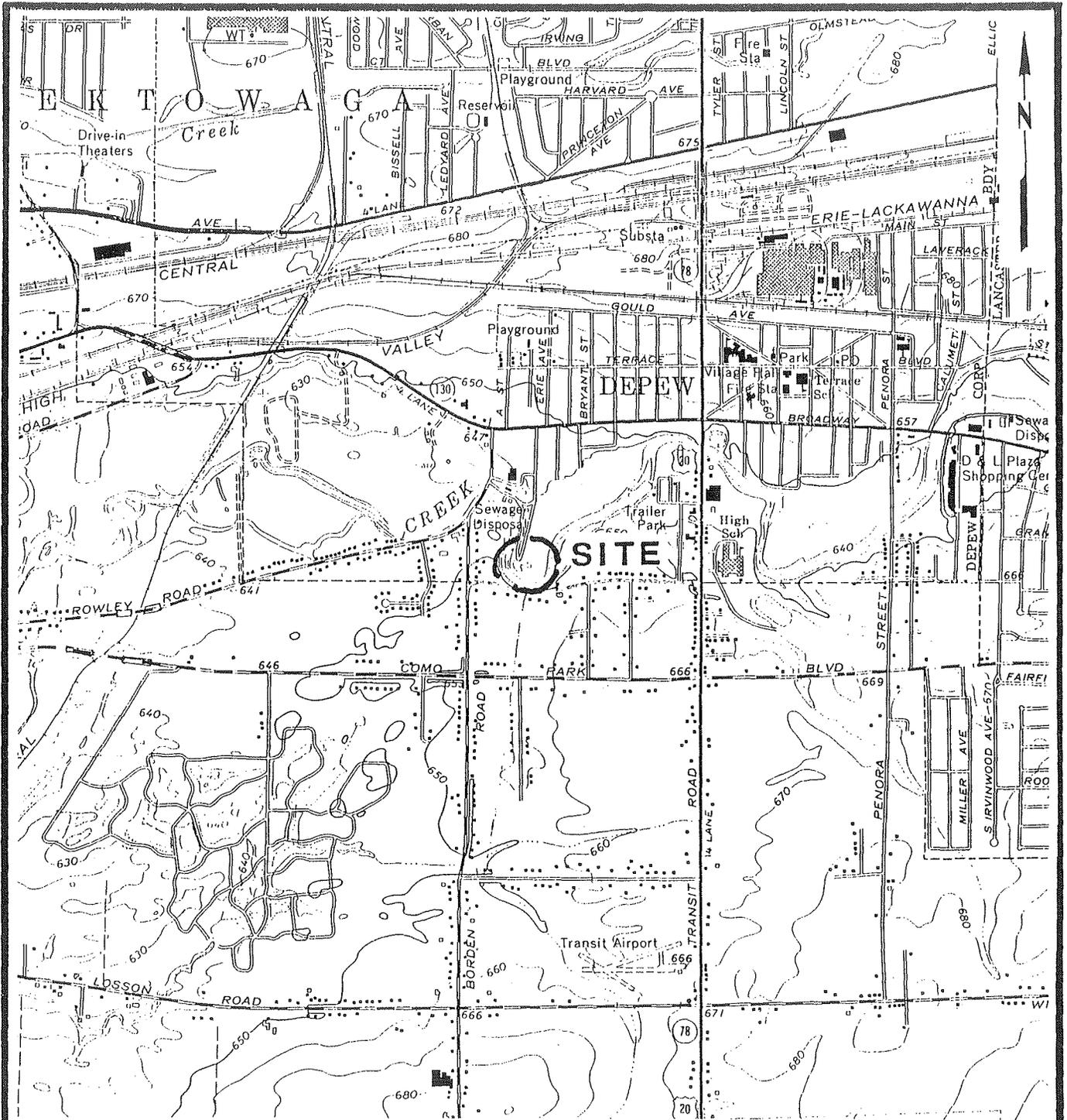
The following recommendations are made for the completion of Phase II:

- o Geophysical Survey Study consisting of electrical resistivity and magnetometer surveys
- o Groundwater monitoring system consisting of one upgradient and two downgradient wells based on results of geophysical surveys
- o Surface water and sediment monitoring consisting of two monitoring stations in Cayuga Creek
- o Waste samples consisting of 6 samples (2 per bore hole) collected from two locations where landfilled materials remain

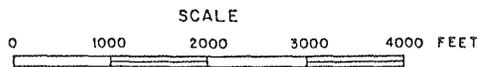
on-site and one background location. Samples will be composite samples of soil collected at the following depths: 6-12 inches, and 18-24 inches.

- o Analyses to include phenols and Hazardous Substance List (HSL) metals.

The estimated man-hour requirements to complete Phase II are 1,378, while the estimated cost is \$86,744.



LATITUDE: 42°53'47" N
 LONGITUDE: 78°42'28" W



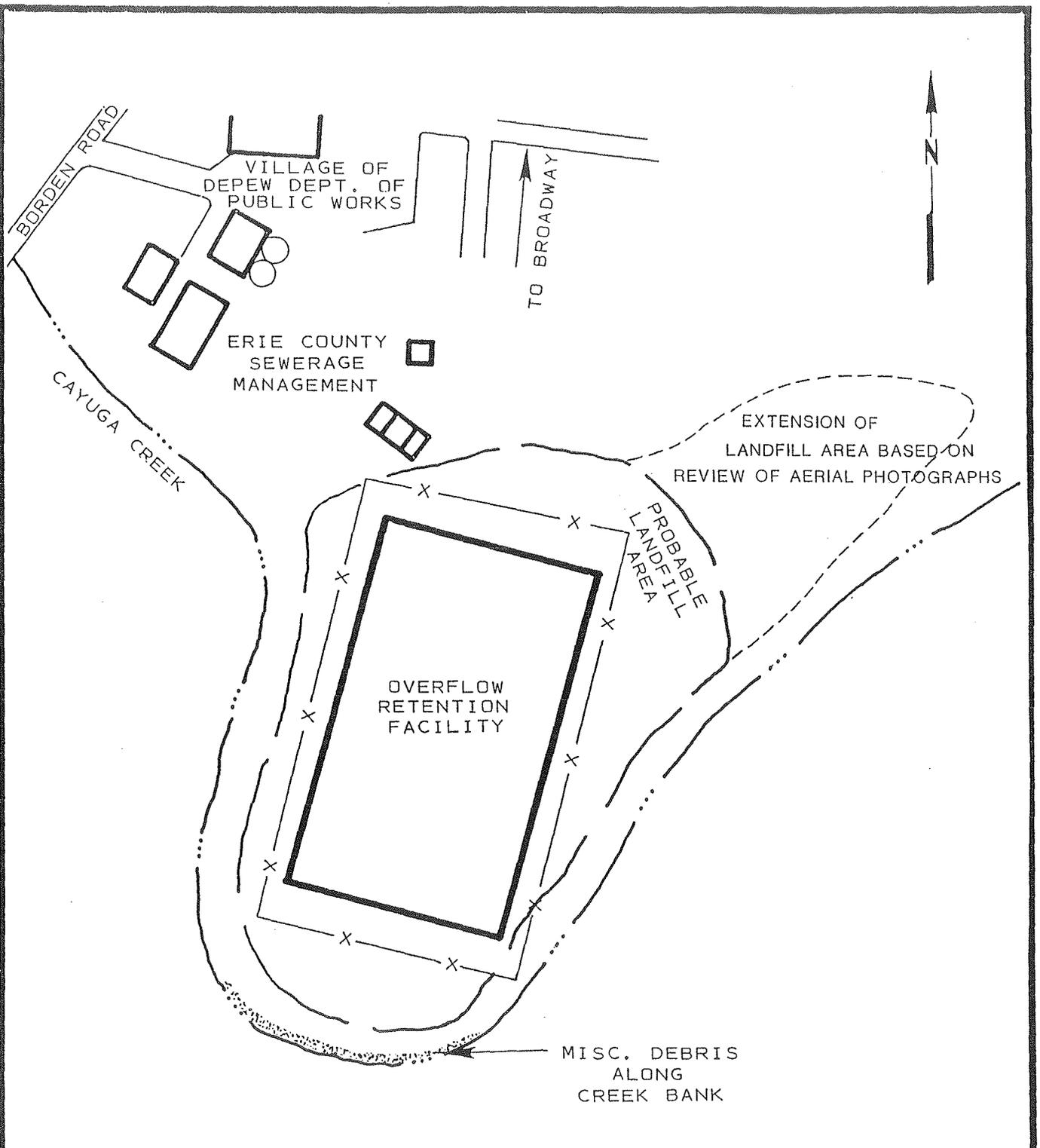
REFERENCE: U.S.G.S. 7.5' Topographic Map
 Lancaster, NY (1965) Quadrangle

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 IN ASSOCIATION WITH
 DAMES & MOORE

NEW YORK STATE DEPARTMENT
 OF ENVIRONMENTAL CONSERVATION
 PHASE I REPORT

SITE LOCATION MAP
 VILLAGE OF DEPEW

FIGURE I-1



NOT TO SCALE

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PHASE I REPORT
PLOT PLAN VILLAGE OF DEPEW

FIGURE I-2

SECTION II

PURPOSE

The purpose of the Phase I investigation at the Village of Depew Landfill site was to assess the hazard to the environment caused by the present condition of the site. This assessment is based on the Hazard Ranking System, which involves the compilation and rating of numerous geological, toxicological, environmental, chemical, and demographic factors and the calculation of an HRS score. Details of HRS implementation are included in Section V. During the initial portion of the investigation, available data and records, combined with information collected from a site inspection, were reviewed and evaluated. The investigation at this site focused on the burial of municipal wastes in the Village of Depew landfill and the use of foundry sand potentially containing phenolic compounds as cover material at the site. Based on this initial evaluation of the Village of Depew Landfill site, a Phase II Work Plan has been prepared for collecting any additional data needed to complete the HRS score. In addition, a cost estimate for the recommended Phase II work is provided.

SECTION IV
SITE ASSESSMENT

SITE HISTORY

The Village of Depew Landfill, approximately five acres in size, was owned by the Village of Depew from 1940 to 1961 and was used for the disposal of municipal waste (Domino, 12/10/85; ECDEP, Hazardous Waste Site Profile Report, 2/19/85). In 1983, the Village of Depew sold the site to Erie County which excavated approximately 60,000 cubic yards of municipal waste from the landfill and constructed an overflow retention facility at the site. Excavated wastes were disposed of in the BFI landfill (Niagara Landfill) located in Tonawanda (Domino, 12/85). Based on inspections conducted by ECDEP, it appears that not all municipal wastes were not excavated (Voell, 4/29/85; ECDEP, Hazardous Waste Site Profile Report, 2/85).

SITE TOPOGRAPHY

The Village of Depew site is located at 315 Borden Road, Village of Depew, Erie County, New York. Prior to construction of the Overflow Retention Facility, the ground surface was slightly elevated rising from the site access road, and sloping to the west into Cayuga Creek. The Erie County Overflow Retention Facility occupies approximately a 3/4 acre area of this site. Excavation and construction of the facility has changed the site topography in the vicinity of the Overflow Retention Facility (ES and D&M site visit, 1985 and ECDEP Hazardous Waste Site Profile Report, 2/85).

The 5-acre site is located in the north side of an oxbow bend in Cayuga Creek. The area is primarily suburban/rural. Areas to the

immediate east and west are open fields. North of the site is residential; south of the site is Cayuga Creek. South of Cayuga Creek are residential areas (ES and D&M Site Inspection, 12/10/85; USGS Topographic Map: Lancaster Quadrangle, 1965).

Surface runoff is primarily to the south, west and east into the Cayuga Creek. An overflow basin outfall is channeled into the Cayuga Creek on the east side of the site. The site is located within a 100 year floodplain (ES and D&M site visit, 1985; ECDEP Hazardous Waste Site Profile Report, 2/85).

Local Sensitive Environments

A NYS registered wetland is located approximately 0.8 miles northwest of the site. The wetland is designated as LA-7 (NYS Wetlands Map, 1984; McMurry, 1/3/86).

SITE HYDROLOGY

Regional Geology and Hydrology

The site is located in the Erie-Ontario lowlands physiographic province. The bedrock of this region is predominantly limestone, dolostone, and shale. Most of the rocks are deep aquifers with regional flow to the south (NYS Museum and Science Service Bedrock Geology Map, 1970).

In the recent past, most of New York State, including the site, has been repeatedly covered by a series of continental ice sheets. The activity of the glacier widened pre-existing valleys and deposited widespread accumulations of till. The melting of ice, ending approximately 12,000 years ago, produced large volumes of meltwater; this water subsequently shaped channels and deposited thick accumulations of stratified, granular sediments.

As glacial ice retreated from the region, meltwater formed lakes in front of the ice margin. The Erie County region is covered by lake sediments resulting from these glacial lakes; the most recent being from Lake Warren (a larger predecessor to Lake Ontario and Lake Erie). The sediments consist of blanket sands and beach ridges which are occasionally underlain by lacustrine silts and clays (indicating quiet, deeper water deposition).

Granular deposits in this region frequently act as shallow aquifers, whereas lacustrine clays, as well as tills, often inhibit groundwater movement. However, fine-grained, water-lain sediments, such as silts and clays, frequently contain horizontal laminations and sand seams. These internal features facilitate lateral groundwater movement through otherwise low permeability materials (LaSala, 1968; Johnston, 1964).

Site Hydrogeology

The site is underlain by Devonian-aged Onondaga Limestone. Depth to top of bedrock was measured at 19 feet and 25 feet at the northern and southern site boundaries respectively. The limestone unit is generally fractured and jointed forming a deep aquifer (Drill & Test, Inc., 3/83).

Boring logs indicate that the bedrock is overlain by a silty, clayey till unit which is in turn overlain by lenses of alluvial sand and gravel deposits from Cayuga Creek. The overburden is variable in sand and gravel content, therefore, permeability across the site would be variable. The alluvium grades upward to fine sand and silt (Drill & Test, Inc., 3/83). Approximately ten feet of waste material was placed on top of the alluvium.

Although the fine-grained character of the upper alluvium sediment may have a low permeability (assumed to be 10^{-3} cm/sec to 10^{-5} cm/sec for HRS scoring) its uneven thickness and distribution allows for the probable hydraulic connection between the seasonally high water tables

occurring within the overburden and the bedrock aquifer (Freeze, R.A. and J.A. Cherry, 1979). Observation wells installed prior to the construction of the overflow retention facility indicate that the water table ranged from a depth of approximately 3 to 17 feet below ground surface (Drill & Test, Inc., 3/83).

SITE CONTAMINATION

From approximately 1940 to 1961, municipal wastes were disposed of in the Village of Depew Landfill. Based on the information available for the site and interviews of ECDEP personnel, no hazardous wastes are known to be disposed of in the landfill (ECDEP, Hazardous Waste Site Profile Report, 2/85; Voell, 4/29/85). In 1983, approximately 60,000 cubic yards of municipal wastes were excavated from the site to allow the construction of the overflow retention facility. Municipal wastes excavated from the landfill were disposed of in the BFI Landfill on River Road in Tonawanda, New York (Domino, 12/10/85).

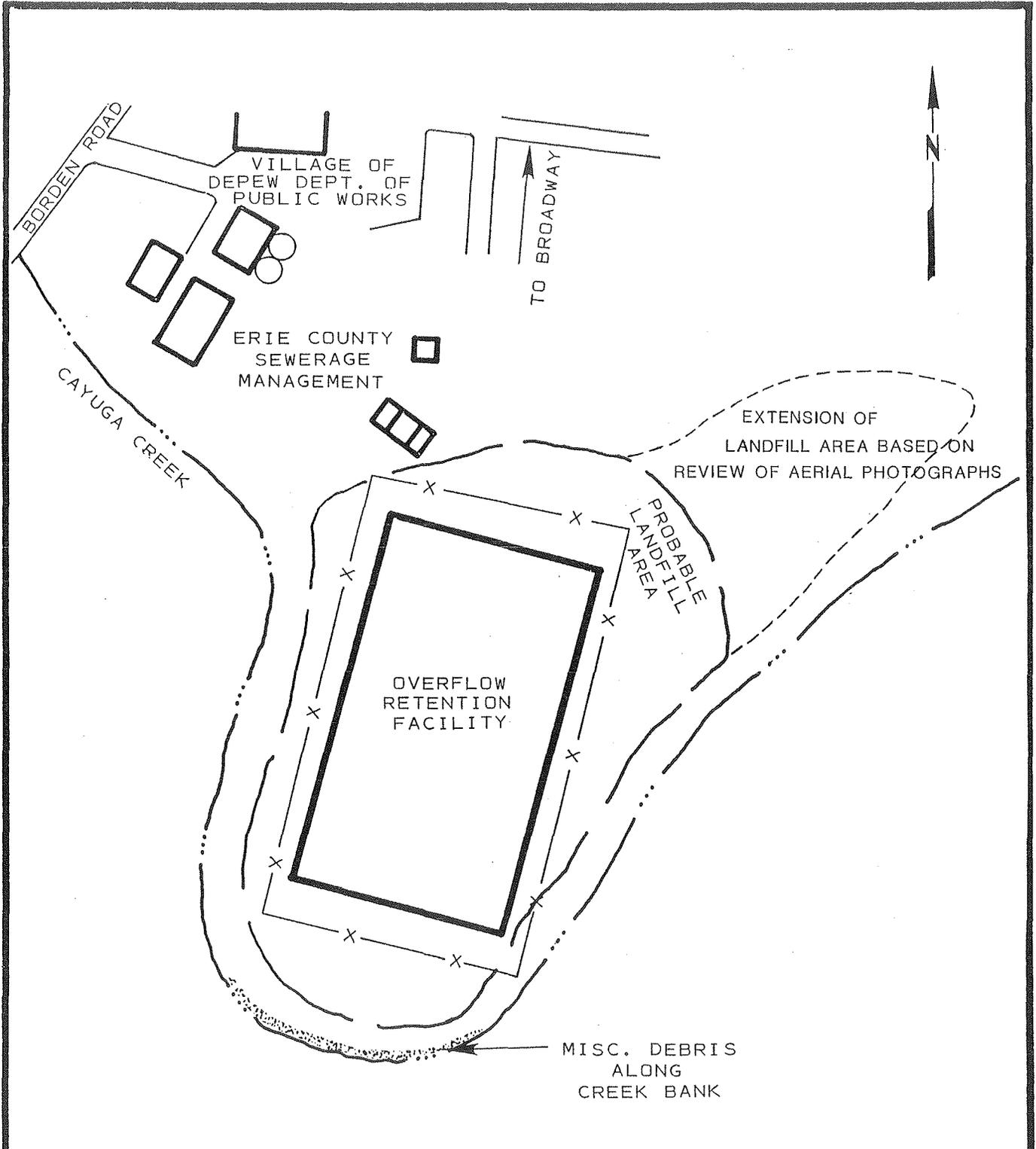
An estimated 10,000 tons per year of municipal solid wastes were reported to be disposed of at the Village of Depew landfill (Domino, 12/10/85). Although wastes have been excavated from the landfill to enable the construction of the overflow retention facility, municipal wastes remain on-site based on review of aerial photographs of the site (ECDEP, Hazardous Waste Site Profile Report, 3/83).

Foundry sands obtained from Dresser Industries were used as cover material at the Village of Depew landfill, although the quantity of foundry sand at the landfill is unknown (Domino, 12/10/85; Labenski, 1/17/86). The foundry sands that were used as cover at the landfill are suspected of containing phenolic compounds; however, the foundry sands at the landfill have not been analyzed to determine if phenols are present in significant concentrations (Domino, 12/10/85; Labenski, 1/17/86). Note that Phase I investigations of other sites which accepted foundry sand from Dresser Industries, contained phenol (Lancaster Reclamation, 5/85); Land Reclamation, 5/85). Also, Dresser Industries

confirmed that foundry sands generated after approximately 1950, contained phenolic binders (Martin, 1/17/86).

Environmental monitoring of the groundwater, surface water or soil has not been conducted at the Village of Depew Landfill site (NYSDEC, Registry Sheet, 1/10/85). In 1982, soil borings were dug at the site to characterize on-site soils as part of the construction of the overflow retention facility. The soil samples collected during this work were not analyzed for hazardous constituents (Drill & Test, Inc., 3/83).

During the Engineering-Science and Dames & Moore site inspection conducted in April 1986, HNu meter readings were taken upwind and downwind at the site. Volatile organics were not detected on-site in concentrations exceeding background levels of 1 ppm (ES/D&M, 4/86).



NOT TO SCALE

ENGINEERING-SCIENCE, INC. IN ASSOCIATION WITH DAMES & MOORE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PHASE I REPORT
PLOT PLAN VILLAGE OF DEPEW
FIGURE IV-1

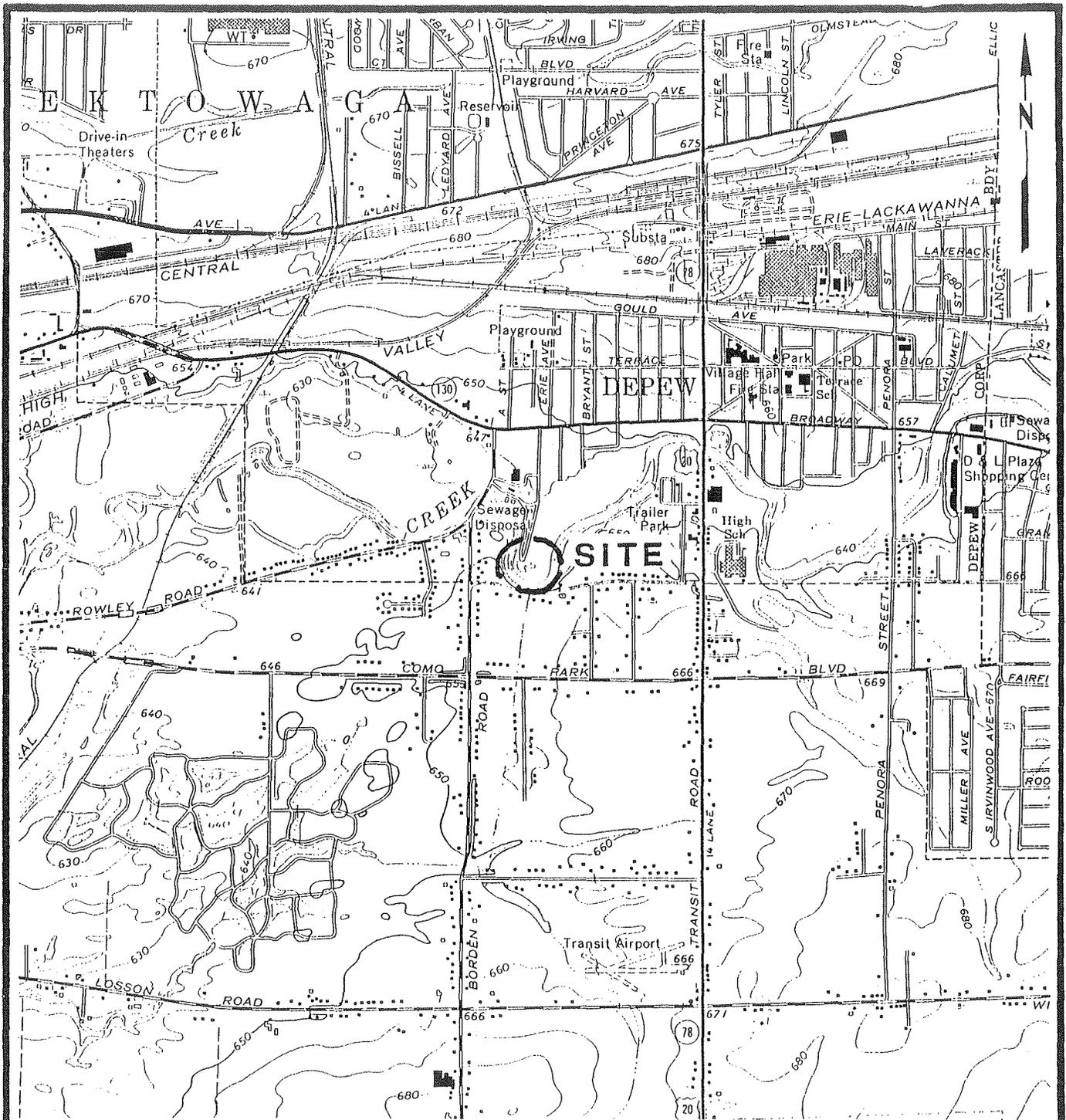
NARRATIVE SUMMARY

The five-acre Village of Depew Landfill is a municipal landfill located in the Village of Depew, Erie County, New York. The landfill was operated from approximately 1940 until 1961 for the disposal of municipal solid wastes. An estimated 10,000 tons per year of solid waste was disposed of in the landfill. No hazardous wastes were known to be disposed of in the landfill (ECDEP, Hazardous Waste Site Profile Report, 2/85). In 1983, Erie County purchased the landfill and excavated a portion of the wastes for purposes of constructing an Overflow Retention Facility. Excavated wastes were not tested for hazardous constituents and were disposed of in the BFI landfill located in Tonawanda (Domino, 12/10/85).

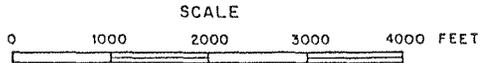
Foundry sand from Dresser Industries was used as cover material at the landfill. The foundry sand is suspected of containing phenolic binders, as Dresser Industries confirmed that foundry sands generated after approximately 1950 contained phenol (Martin, 1/17/86). However, the foundry sands at the landfill have not been analyzed to determine if phenols are present (Domino, 12/10/85; Labenski, 1/17/86).

No environmental monitoring of groundwater, surface water or soil has been conducted to date at the landfill site (NYSDEC, Registry Sheet, 1/85). Soil samples collected from borings drilled as part of the installation of the retention facility were not analyzed for hazardous constituents (Drill & Test, Inc.).

HNu meter readings were taken upwind and downwind at the site during the ES/D&M site inspection conducted in April, 1986. Volatile organics were not detected on-site in concentrations exceeding background levels of 1 ppm (ES/D&M, 4/86).



LATITUDE: 42° 53' 47" N
 LONGITUDE: 78° 42' 28" W



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 PHASE I REPORT

SITE LOCATION MAP
 VILLAGE OF DEPEU

FIGURE V-1

REFERENCE: U.S.G.S. 7.5' Topographic Map
 Lancaster, NY (1965) Quadrangle

HRS COVER SHEET

Facility Name: Village of Depew Landfill

Location: Village of Depew, Erie County, New York

EPA Region: II

Person(s) in charge of the facility: Mayor Arthur Domino
Vincent LiPuma - Superintendent

Name of Reviewer: Cathy J. Bosma Date: 01-08-86

General Description of the facility:

The Village of Depew Landfill, approximately 5 acres, accepted municipal wastes from approximately 1940 to 1961. No hazardous wastes are known to be disposed of on site. Waste material (60,000 cubic yards) was excavated from the site in 1983, and the property was sold to Erie County for construction of overflow retention facility. No environmental monitoring has been conducted at the site to date. Foundry sand, used as cover material at the landfill, is suspected of containing phenolic compounds.

Scores: $S_M = 0$ ($S_{GW} = 0$ $S_{SW} = 0$ $S_A = 0$)
 $S_{FE} = 0$
 $S_{DC} = 0$

Facility Name: Village of Depue Landfill Date: 1-8-86

Ground Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1	0	45	3.1
If observed release is given a score of 45, proceed to line 4 . If observed release is given a score of 0, proceed to line 2 .					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 2 3	2	6	6	
Net Precipitation	0 1 2 3	1	2	3	
Permeability of the Unsaturated Zone	0 1 2 3	1	2	3	
Physical State	0 1 2 3	1	1	3	
Total Route Characteristics Score			11	15	
3 Containment	0 1 2 3	1	3	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence Hazardous Waste Quantity	0 3 6 9 12 15 18 1	1	0	18	
	0 1 2 3 4 5 6 7 8 1	1	0	8	
Total Waste Characteristics Score			0	26	
5 Targets					3.5
Ground Water Use	0 1 2 3	3	3	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
Total Targets Score			3	49	
6 If line 1 is 45, multiply 1 x 4 x 5					
If line 1 is 0, multiply 2 x 3 x 4 x 5			0	57,330	
7 Divide line 6 by 57,330 and multiply by 100			$S_{gw} = 0$		

GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	0 45	1	0	45	4.1	
If observed release is given a value of 45, proceed to line 4 . If observed release is given a value of 0, proceed to line 2 .						
2 Route Characteristics					4.2	
Facility Slope and Intervening Terrain	0 1 2 3	1	2	3		
1-yr. 24-hr. Rainfall	0 1 2 3	1	2	3		
Distance to Nearest Surface Water	0 1 2 3	2	6	6		
Physical State	0 1 2 3	1	1	3		
Total Route Characteristics Score			11	15		
3 Containment	0 1 2 3	1	3	3	4.3	
4 Waste Characteristics					4.4	
Toxicity/Persistence	0 3 6 9 12 15 18	1	0	18		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	0	8		
Total Waste Characteristics Score			0	26		
5 Targets					4.5	
Surface Water Use	0 1 2 3	3	0	9		
Distance to a Sensitive Environment	0 1 2 3	2	2	6		
Population Served/Distance to Water Intake Downstream	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40		
Total Targets Score			2	55		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0	64,350		
7 Divide line 6 by 64,350 and multiply by 100			$S_{sw} = 0$			

SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	<u>0</u> 45	1	0	45	5.1	
Date and Location: <u>April 1986. No organics detected upwind or downwind of the site</u>						
Sampling Protocol: <u>HNa meter</u>						
If line 1 is 0, the $S_a = 0$. Enter on line 5 .						
If line 1 is 45, then proceed to line 2 .						
2 Waste Characteristics					5.2	
Reactivity and Incompatibility	0 1 2 3	1		3		
Toxicity	0 1 2 3	3		9		
Hazardous Waste	0 1 2 3 4 5 6 7 8	1		8		
Total Waste Characteristics Score				20		
3 Targets					5.3	
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30		
Distance to Sensitive Environment	0 1 2 3	2		6		
Land Use	0 1 2 3	1		3		
Total Targets Score				39		
4 Multiply 1 x 2 x 3				35,100		
5 Divide line 4 by 35,100 and multiply by 100				$S_a = 0$		

AIR ROUTE WORK SHEET

Worksheet for Computing S_M

	s	s ²
Groundwater Route Score (S_{gw})	0	0
Surface Water Route Score (S_{sw})	0	0
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		0
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		0
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		0

WORK SHEET FOR COMPUTING S_M

Fire and Explosion Work Sheet

Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1		3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Total Targets Score				24	
4 Multiply 1 x 2 x 3				1,440	
5 Divide line 4 by 1,440 and multiply by 100					$S_{FE} = 0$

FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Incident	(0) 45	1	0	45	8.1	
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2						
2 Accessibility	(0) 1 2 3	1	0	3	8.2	
3 Containment	(0) 15	1	0		8.3	
4 Waste Characteristics Toxicity	(0) 1 2 3	5	0	15	8.4	
5 Targets					8.5	
Population Within 1-Mile Radius	0 1 2 (3) 4 5	4	12	20		
Distance to a Critical Habitat	(0) 1 2 3	4	0	12		
Total Targets Score			12	32		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0	21,600		
7 Divide line 6 by 21,600 and multiply by 100			$S_{DC} = 0$			

DIRECT CONTACT WORK SHEET

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

FACILITY NAME: Village of Depew Landfill

LOCATION: Village of Depew, Erie County, New York

GROUND WATER ROUTE

1. OBSERVED RELEASE

Contaminants detected (5 maximum):

No groundwater monitoring has been conducted at the site.
(Erie County DEP, 2/85)

Rationale for attributing the contaminants to the facility:

No observed release. No ground water monitoring conducted at site.
(ECDEP, 2/85)

* * *

2. ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) in concern:

Overburden and bedrock aquifer suspected to be hydraulically connected.
(Drill & Test, Inc., Site Investigation, 3/83)

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

Seasonally high water table - approximately 3 to 17 feet.
(Drill & Test, Inc., Site Investigation, 3/83;
Hazardous Waste Site Profile Report, 2/85)

Depth from the ground surface to the lowest point of waste disposal/storage:

Approximately 14 feet.
(Boring Logs A-27 through A-30, Drill & Test, Inc., 12/82)

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

Mean annual precipitation is 32".
(USDOC, Climatic Atlas of the United States, 1979)

Mean annual lake or seasonal evaporation (list months for seasonal):

Mean annual lake evaporation is 27".
(USDOC, Climatic Atlas of the United States, 1979)

Net precipitation (subtract the above figures):

32" - 27" = 5".
(USDOC, Climatic Atlas of the United States, 1979)

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Clayey silt with interbedded sand and gravel layers.
(Drill & Test, Inc., 3/83)

Permeability associated with soil type

$> 10^{-5} < 10^{-3}$ cm/sec.
(Freeze, R.A. and J.A. Cherry, Groundwater, 1979)

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

Paper, dust, wood, and municipal solid waste - unconsolidated solid waste.
(NYSDEC Registry Sheet, 1/85; ECDEP, Hazardous Waste Site Profile Report, 2/85)

3. CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Unlined landfill, no run-on control.

(ES/D&M Site Visit, 12/85; Subsurface Investigations, Drill & Test, Inc., 1983; and ECDEP Hazardous Waste Site Profile Report, 1985)

Method with highest score:

Unlined landfill, no run-on control - 3.

(ES/D&M Site Visit, 12/85; Subsurface Investigations, Drill & Test, Inc., 1983; and ECDEP Hazardous Waste Site Profile Report, 1985)

4. WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

No environmental monitoring of groundwater, surface water or soil has been conducted at the site (NYSDEC, Registry Sheet 1/85). However, foundry sands suspected of containing phenolic based binders were used as a cover material at the site (Domino, 12/10/85; Martin, 1/17/86).

Compound with highest score:

For purposes of scoring the site, phenol is not used because monitoring has not been conducted to determine if phenol is present at the site (Labenski, 1/20/86). Therefore, the toxicity/persistence score is zero.

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

No hazardous wastes known to be disposed of on-site. Foundry sands suspected of containing phenol was used as cover material at the landfill. Monitoring has not been conducted to determine if phenols are present on-site (NYSDEC Registry Sheet, 1985; ECDEP, Hazardous Waste Site Profile Report, 1/85)

Basis of estimating and/or computing waste quantity:

The landfill was used for the disposal of municipal solid wastes and hazardous wastes are not known to be disposed of on-site (ECDEP, Hazardous Waste Site Profile Report, 1/85; Domino, 12/10/85; and Labenski, 1/20/86) An unknown quantity of foundry sand, suspected of containing phenolic-based binders, was used as cover material at the landfill. For HRS scoring, the hazardous waste quantity score is zero because the presence of phenol has not been confirmed.

5. TARGETS

Ground Water Use

Uses(s) of aquifer(s) of concern within a 3-mile radius of the facility:

Groundwater is not used as a source of drinking water within 3 miles of the site. Potable water is obtained from a municipal water system (Domino, 12/10/85).

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

Not applicable, there are no groundwater wells drawing water from the aquifer of concern within 3 miles of the site (Domino, 12/10/85).

Distance to above well or building:

Not applicable, there are no groundwater wells drawing water from the aquifer of concern within 3 miles of the site (Domino, 12/10/85).

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

There are no water-supply wells drawing water from the aquifer of concern within 3 miles of the site (NYSDOH, NYS Atlas of Community Water System Sources, 1982; Domino, 12/10/85).

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

Water withdrawn from the aquifer of concern is not used for irrigation within 3 miles of the site (NYSDOH, NYS Atlas of Community Water System Sources, 1982; Domino, 12/10/85).

Total population served by ground water within a 3-mile radius:

Residents within a 3-miles radius of the site obtain water from municipal water supply. Therefore, the total population served = 0 (NYSDOH, NYS Atlas of Community Water System Sources, 1982; Domino, 12/10/85).

SURFACE WATER ROUTE

1. OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

No surface water monitoring has been conducted at the site (ECDEP, Hazardous Waste Site Profile Report, 2/1985; NYSDEC, Registry Sheet, 1/10/85).

Rationale for attributing the contaminants to the facility:

No surface water monitoring has been conducted at the site (ECDEP, Hazardous Waste Site Profile Report, 2/1985; NYSDEC, Registry Sheet, 1/10/85).

* * *

2. ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

2 percent
(Drill & Test, Inc., 1983)

Name/description of nearest downslope surface water:

Cayuga Creek
(USGS Topographic Map, Lancaster Quadrangle, 1965; ES/D&M Site Inspection, 12/110/85)

Average slope of terrain between facility and above-cited surface water body in percent:

Approximately 9%
(USGS Topographic Map, Lancaster Quadrangle, 1965)

Is the facility located either totally or partially in surface water?

No.
(ES and D&M Site Visit, 12/85)

Is the facility completely surrounded by areas of higher elevation?

No.

(ES and D&M Site Visit, 12/10/85)

1-Year 24-Hour Rainfall in Inches

2.1".

(USDOC, Rainfall Frequency Atlas of the United States,
Technical Paper No. 40, 1963)

Distance to Nearest Downslope Surface Water

Approximately 100 feet to Cayuga Creek

(ES and D&M Site Visit, 12/10/85)

Physical State of Waste

Paper, dust, wood and municipal solid waste - unconsolidated
solid waste

(NYSDEC, Registry, 1/10/85; ECDEP, Hazardous Waste Site
Profile Report, 2/85)

3. CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Landfill not adequately covered and unsound diversion system.

(ES and D&M Site Visit and Interviews with Village of Depew
and Krehbiel Associates, 12/85; Subsurface Investigation,
Drill & Test, Inc., 1983)

Method with highest score:

Inadequate cover, unsound diversion system. -3

(ES and D&M Site Visit and Interviews with Village of Depew
and Krehbiel Associates, 12/85; Subsurface Investigation,
Drill & Test, Inc., 1983)

4. WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

No environmental monitoring has been conducted at the site (NYSDEC, Registry Sheet, 1/85). However, foundry sands suspected of containing phenolic based binders were used as a cover material at the site (Domino, 12/10/85; Martin, 1/17/86).

Compound with highest score:

For purposes of scoring the site, phenol is not used because monitoring has not been conducted to determine if phenol is present at the site (Labenski, 1/20/86). Therefore, the toxicity/persistence score is zero.

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

No hazardous wastes are known to be disposed of on-site. Foundry sands suspected of containing phenol were used as cover material at the landfill. Monitoring has not been conducted to determine if phenols are present on-site (NYSDEC, Registry Sheet, 1985; ECDEP Site Profile Report, 1985).

Basis of estimating and/or computing waste quantity:

The landfill was used for the disposal of municipal solid waste and hazardous wastes are not known to be disposed of on-site. An unknown quantity of foundry sand, suspected of containing phenolic-based binders, was used as cover material at the landfill. For HRS scoring, the hazardous waste quantity score is zero because the presence of phenol has not been confirmed.

* * *

5. TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

Cayuga Creek is used for fishing by local residents. Surface water is not used for drinking water within 3 miles of the site (Domino et al, 12/10/85).

Is there tidal influence?

Site is not located in a coastal area (ES/D&M Site Visit, 1985).

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Site is not located in a coastal area.

(USGS Topographic Map: Lancaster Quadrangle, 1965)

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

A New York State designated wetland is located 0.8 miles northwest - LA-7.

(McMurry, NYSDEC - Region 9, 1/3/86)

Distance to critical habitat of an endangered species or national wild-life refuge, if 1 mile or less:

There are no Federally-designated critical habitats in New York State.

(OZARD, 1986)

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

Water supply intakes are not located within 3 miles of the site.

(NYS Atlas of Community Water System Sources, 1982; Domino, 12/10/85).

Computation of land area by above-cited intake(s) and conversion to population (1.5 people per acre):

Not applicable. No known water supply intakes are located within 3 miles of the site (NYS Atlas of Community Water System Sources, 1982; Domino, 12/10/85).

Total population served:

Not applicable. No known water supply intakes are located within 3 miles of the site (NYS Atlas of Community Water System Sources, 1982; Domino, 12/10/85).

Name/description of nearest of above water bodies:

Not applicable. No known water supply intakes are located within 3 miles of the site (NYS Atlas of Community Water System Sources, 1982; Domino, 12/10/85).

Distance to above-cited intakes, measured in stream miles:

Not applicable. No known water supply intakes are located within 3 miles of the site (NYS Atlas of Community Water System Sources, 1982; Domino, 12/10/85).

AIR ROUTE

1. OBSERVED RELEASE

Contaminants detected:

HNu meter readings were taken upwind and downwind of the site. All readings for volatile organics were below background levels of 1 ppm (ES/D&M Site Visit, April 1986).

Date and location of detection of contaminants:

Not applicable, no observed release (ES/D&M Site Inspection, 1986).

Methods used to detect the contaminants:

HNu meter.

Rationale for attributing the contaminants to the site:

Not applicable, no hazardous waste with the potential to impact the air pathway are known to exist on-site. (ECDEP Hazardous Waste Site Profile Report, 2/85; NYSDEC, Registry Sheet, 1/10/85).

* * *

2. WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

No reactive compounds are known to exist on-site (ECDEP Hazardous Waste Site Profile Report, 2/85; NYSDEC, Registry Sheet, 1/10/85).

Most incompatible pair of compounds:

No incompatible pair of compounds is known to exist on-site (ECDEP Hazardous Waste Site Profile Report, 2/85; NYSDEC, Registry Sheet, 1/10/85).

Toxicity

Most toxic compound:

No hazardous wastes with the potential to impact the air pathway are known to exist on-site (ECDEP Hazardous Waste Site Profile Report, 2/85; NYSDEC, Registry Sheet, 1/10/85).

Hazardous Waste Quantity

Total quantity of hazardous waste:

The hazardous waste quantity score is zero because no hazardous wastes with the potential to impact the air pathway are known to exist on-site (ECDEP Hazardous Waste Site Profile Report, 2/85; NYSDEC, Registry Sheet, 1/10/85).

Basis of estimating and/or computing waste quantity:

Not applicable, see above comment.

* * *

3. TARGETS

Population Within 4-Mile Radius

Underline radius used, give population, and indicate how determined:

0 to 4 mi	<u>0 to 1 mi</u>	0 to 1/2 mi	0 to 1/4 mi
	1,090 people		
	(1980 U.S. Census Data)		

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

None within 2 miles. (Western NYS is not a coastal area.)

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

A NYS designated wetland is located 0.8 miles NW of the site - LA-7 (McMurry, NYSDEC Region 9, 1/3/86).

Distance to critical habitat of an endangered species, if 1 mile or less:

There are no federally designated critical habitats in New York State (Ozard, 1986).

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Approximately 1/2 mile (ES/D&M Site Visit, 1985).

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

There are no parks or wildlife reserves within 2 miles of the site (USGS Topographic Map - Lancaster Quadrangle).

Distance to residential area, if 2 miles or less:

< 1/4 mile across Cayuga Creek (ES/D&M Site Visit, 1985).

Distance to agricultural land in production within past 5 years, if 1 mile or less:

1/2 mile (ES/D&M Site Visit, 1985; USGS Topographic Map - Lancaster Quadrangle).

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

None (ES/D&M Site Visit, 1985; USGS Topographic Map - Lancaster Quadrangle).

Is a historic or landmark site (National Register of Historic Places and National Natural Landmarks) within view of the site?

There are no historic landmarks within view of the site (USGS Topographic Map - Lancaster Quadrangle).

FIRE AND EXPLOSION

1. CONTAINMENT

Hazardous substances present:

No information was discovered during the Phase I study which indicates that a fire and explosion situation existed or presently exists at the site.

Type of containment, if applicable:

N/A

* * *

2. WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

No measurements were taken to determine the fire and explosion potential on-site.

Ignitability

Compound used:

No ignitable compounds are known to exist on-site (ECDEP, Site Profile Report, 1985; NYSDEC, Registry Sheet, 1/10/85).

Reactivity

Most reactive compound:

No reactive compounds are known to exist on-site (ECDEP, Site Profile Report, 1985; NYSDEC, Registry Sheet, 1/10/85).

Incompatibility

Most incompatible pair of compounds:

No incompatible compounds are known to exist on-site (ECDEP, Site Profile Report, 1985; NYSDEC, Registry Sheet, 1/10/85).

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

No hazardous waste with the potential to create a fire or explosion hazard is known to exist on-site (NYSDEC Registry Sheet, 1/10/85).

Basis of estimating and/or computing waste quantity:

See comment above.

* * *

3. TARGETS

Distance to Nearest Population

Less than 1/4 mile across Cayuga Creek
(ES/D&M Site Visit, December, 1985)

Distance to Nearest Building

Less than 1/4 mile
(ES/D&M Site Inspection, December, 1985)

Distance to Sensitive Environment

Distance to wetlands:

A New York State designated wetland is located 0.8 miles NW of the site - LA-7 (McMurry, NYSDEC Region 9, 1/3/86).

Distance to critical habitat:

There are no federally designated critical habitats in New York State (Ozard, 1986).

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Less than 1/2 mile (ES/D&M Site Visit, 1985).

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

There are no historic landmarks within view of the site (ES/D&M Site Visit, 1985).

Distance to residential area, if 2 miles or less:

Less than 1/4 mile across Cayuga Creek (ES/D&M Site Visit, 1985).

Distance to agricultural and in production within past 5 years, if 1 mile or less:

1/2 mile (ES/D&M Site Visit, 1985; USGS Topographic Map - Lancaster Quadrangle).

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

None (ES/D&M Site Visit, 1985; USGS Topographic Map - Lancaster Quadrangle).

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

There are no historic landmarks within view of the site (USGS Topographic Map - Lancaster Quadrangle, 1965).

Population with 2-Mile Radius

37,343 people (U.S. Bureau of Census, 1980).

Buildings Within 2-Mile Radius

9,827 buildings (estimate based 37,343 people ÷ 3.8 people per house).

DIRECT CONTACT

1. OBSERVED INCIDENT

Date, location, and pertinent details of incident:

No observed incident. Information reviewed during the Phase I investigation has not identified any previous incident related to contact with waste disposed of on-site that may cause injury, illness or death to humans or animals (Phase I Record Search, 1985).

* * *

2. ACCESSIBILITY

Describe type of barrier(s):

Fenced area, and access is controlled either by a locked gate or personnel from Erie County Sewerage Management (ES/D&M Site Visit, 1985).

* * *

3. CONTAINMENT

Type of containment, if applicable:

There are no hazardous wastes known to be landfilled on-site. An unknown quantity of foundry sand, suspected of containing phenols, was used as cover material at the landfill. For HRS scoring, hazardous wastes are not accessible to direct contact because the presence of phenol has not been confirmed (ES/D&M Site Visit, December, 1985; and ECDEP Site Profile Report, 1985).

* * *

4. WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

The landfill was used for the disposal of municipal solid wastes and no hazardous wastes are known to exist on-site. An unknown quantity of foundry sand, suspected of containing phenolic base binders, was used as cover material at the landfill. Because the presence of phenol has not been determined, phenol is not used to score the site.

Compound with highest score:

See above comment.

5. TARGETS

Population within one-mile radius

1,090 people (U.S. Bureau of Census, 1980).

Distance to critical habitat (of endangered species)

There are no federally designated critical habitats in New York State (Ozard, 1986).

HRS REFERENCES*

- 1) Domino; LiPuma, V., Village of Depew and Labinski, R., and Devlin G., Personal Interviews during Phase I Site Inspection, 12/10/85.
- 2) Drill & Test, Inc., Site of Investigation, Overflow Retention Facility, Erie County Sewer District No. 4, Depew, New York, 3/83.
- 3) Erie County Department of Planning, Hazardous Waste Site Profile Report for Village of Depew, 2/85.
- 4) Erie County Planning Department, U.S. Bureau of the Census, 1980.
- 5) Engineering-Science (ES) and Dames & Moore, Site Inspection of Village of Depew, 12/10/85.
- 6) Labenski, R.H., Krehbiel Associates, Letter to C. Bosma, 1/20/86.
- 7) Lancaster Reclamation, Phase I Investigation Report, 5/85.
- 8) Land Reclamation, Phase I Investigation Report, 5/85.
- 9) LiPump, V., and B. Labenski, Personal Interview, 2/12/88.
- 10) Martin, A., Dresser Industries, Personal Interview, 1/17/86.
- 11) McMurry, M., NYSDEC Region 9, Department of Regulatory Affairs, Personal Interview, 1/3/86.
- 12) NYS Wetland Maps.
- 13) NYSDEC, Inactive Hazardous Waste Disposal Site Report (Registry Sheet), 1/10/85.
- 14) Ozard, J., Senior Wildlife Biologist, NYSDEC, Personal Interview, 1/17/86.
- 15) New York State Department of Health, NYS Atlas of Community Water System Sources, 1982.
- 16) U.S. Department of Commerce, Climatic Atlas of the United States, National Climatic Center, 1979.
- 17) U.S. Department of Commerce, Rainfall Frequency Atlas of the United States, Technical Paper No, 40, U.S. Government Printing Office, 1963.
- 18) U.S. Geological Survey, Topographic Map: Lancaster Quadrangle, 1965.
- 19) Voell, A.T., ECDEP, Memorandum to P. Beuchi, Inspection Report for Depew Landfill Site, 4/29/85.

* For general references, see Appendix A.

REF-1

INTERVIEW FORM

Mayor Domino/Vincent LiPuma - Village of Depew

INTERVIEWEE/CODE Robert Labinski/Gerald Devlin - Consulting Engineer/Erie County

TITLE - POSITION _____

ADDRESS Borden RoadCITY Depew STATE NY ZIP _____PHONE () RESIDENCE PERIOD _____ TO _____LOCATION Depew INTERVIEWER Cathy J. BosmaDATE/TIME 12/10/85 / 10:30SUBJECT: Village of Depew Phase I site investigationsREMARKS: Site owned by Village of Depew until 1983 when it was sold to ErieCounty to develop an overflow retention facility. The site was inactiveas of 1962, and consisted of 5 acres. Only residential refuse (household)were disposed in site (10,000 tons yr). Trask Pickup was about 3 times/week. Excavated mat'l was taken to BFT landfill site on River Road inTonawanda. Residence are on municipal water, also piped sewers.No drums were placed on site or discovered during excavation. No informationon groundwater or surface water monitoring data is available. Foundrysands was used for cover material, when excavated Dresser Industries (wherefoundry sand was obtained) stated that it contained no phenols but mat'lwas not tested. There were monitoring wells on site but are presentlydestroyed. Drill & Test, Inc. did soils test. No test of excavatedmaterials has been done to their knowledge. Filter fabric & gravel wereplaced before retention facility was constr.

I AGREE WITH THE ABOVE SUMMARY OF THE INTERVIEW: _____

SIGNATURE: _____

COMMENTS: _____

INTERVIEW FORM

INTERVIEWEE/CODE Maur Dominio / Vincent LiPuma / Robert Lepinski / Gerald Devlin
 TITLE - POSITION Village of Depew Consulting Engineer
 ADDRESS Borden Rd.
 CITY B Depew STATE NY ZIP _____
 PHONE () RESIDENCE PERIOD _____ TO _____
 LOCATION: Depew INTERVIEWER Cathy T. Bosma
 DATE/TIME 12-10-85 1 10:30
 SUBJECT: Village of Depew Phase I site investigations

REMARKS: Site owned by Village of Depew until 1983 when it was
sent to Eric Bourdy to develop a overflow retention facility.
The site was inactive as of 1962, and consisted of 5 acres.
Only residential refuse (household) were disposed in site (10,000).
Truck pickup was about 3 times week. Excavated material
was taken to BFI landfill site on River Road in ^{Tonawanda} Buffalo
Falls. Residents are on municipial water, also piped sewers.
No drums were placed on site or discovered during excavation.
No information on groundwater or surface water monitoring
data is available. Foundry sand was used for cover material,
when excavated Dresser Industries (where foundry sand was
obtained) verified that it contained no phenols but mill was
not tested. There were monitoring wells on site but are
presently destroyed. Drill to Test, Inc. did soil tests. No test
of excavated material has been done to their knowledge. Filter sand
& gravel ~~was~~ were placed in retention facility ~~was~~

I AGREE WITH THE ABOVE SUMMARY OF THE INTERVIEW:

SIGNATURE: *(Signature)* *(Signature)*
Vince J. P... Gerald Devlin
Robert H. Lepinski

COMMENTS:

DRILL & TEST, INC.

REF-2

Minority Business Enterprise

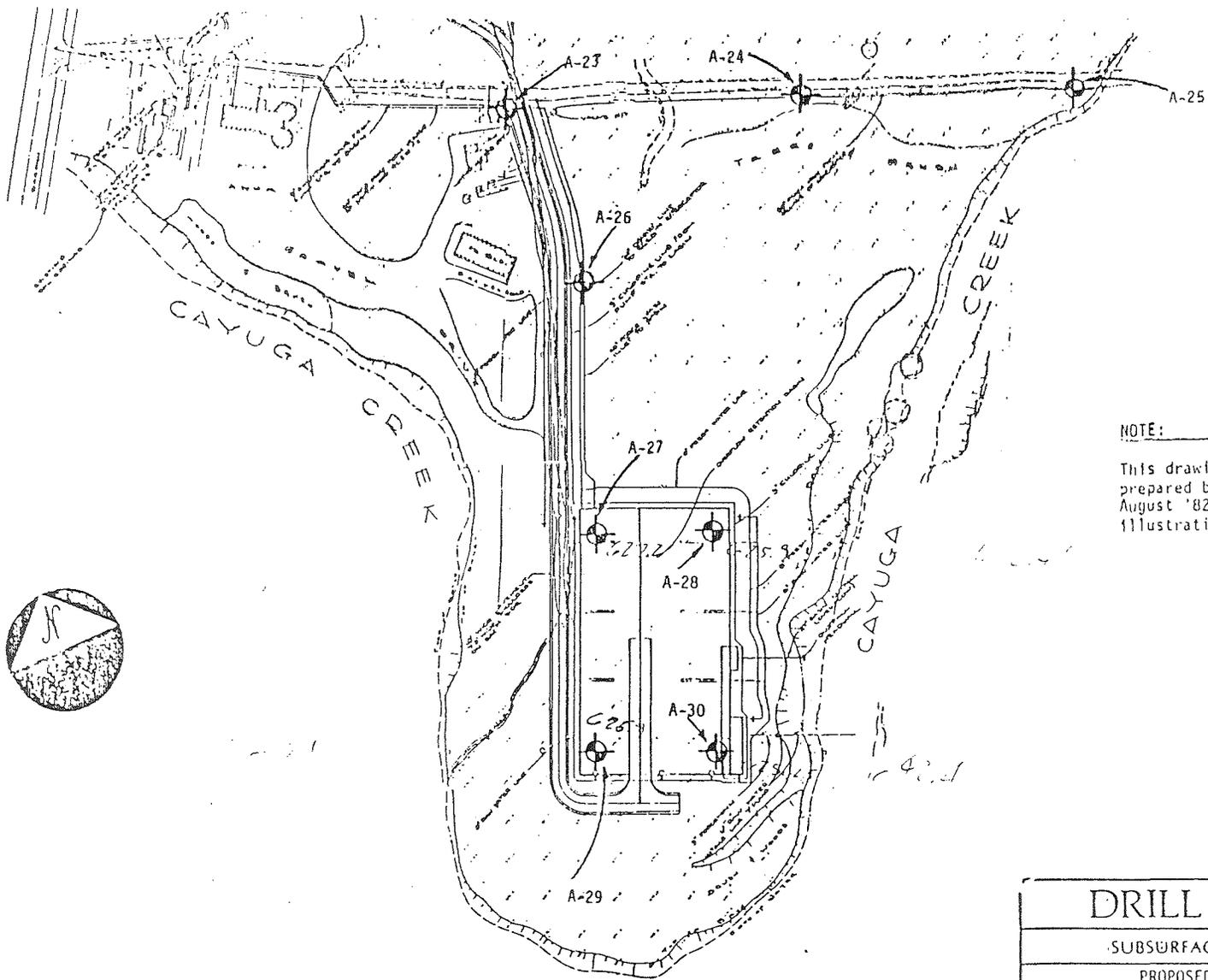
Carl A. Rosati, Jr., President

SITE OF INVESTIGATION
OVERFLOW RETENTION FACILITY
ERIE COUNTY SEWER DISTRICT NO. 4
DEPEW, NEW YORK

for

Krehbiel Associates
1870 Niagara Falls Boulevard
Tonawanda, NY 14150

DTB-82-6
March, 1983



NOTE:

This drawing is a reproduction of a drawing prepared by Krehbiel Associates, Inc. dated August '82, Sheet ECI-2A and is for illustrative purposes only.

REF 2

DRILL & TEST, INC.

SUBSURFACE INVESTIGATION PLAN

PROPOSED OVERFLOW RETENTION FACILITY
 ERIE COUNTY SCHER DISTRICT NO. 4
 DEPEW, NEW YORK

DR BY _____ | SCALE APPROX. 1"=120' PROJ NO. DIB-82-1

DATE
 STARTED 12/28/82
 FINISHED 12/28/82
 SHEET 1 OF 1

DRILL & TEST, INC.

HOLE NO A-23
 SURF ELEV 639.7
 G W DEPTH See Note

SUBSURFACE LOG

PROJECT Overflow Retention Program
Erie County Sewer District No. 4

LOCATION Depew, New York

DEPTH	SAMPLES	SAMPLE NO	BLOWS ON SAMPLER					BLOW ON CASING C	SOIL OR ROCK CLASSIFICATION	NOTES
			11	11	12	12	18				N
0								6" TOPSOIL		
	/	1	4	4	5	9		Moist loose brown Clayey SILT, trace sand, trace gravel (Fill)		
5	/	2	2	2	4	6		Contains little fine-coarse Sand, little fine-coarse Gravel, occasional clay lenses, tr. roots, contaminated with topsoil		
10	/	3	10	14	13	27		Moist firm tan Clayey SILT and fine-coarse Sand, some fine-coarse Gravel		
15	/	4	21	30				Becomes very compact, brown-gray (Till), contains some f-c Sand		
			35	33		65				
	/	5	100	1.5				Boring Complete with Refusal at 17.5 feet.	1. No free standing water encountered in hole at boring completion.	
20										

DATE
 STARTED 12/28/82
 FINISHED 12/28/82
 SHEET 1 OF 1

DRILL & TEST, INC.

HOLE NO A-26 **REF. 2**
 SURF ELEV 639.4
 G W DEPTH See Note

SUBSURFACE LOG

PROJECT Overflow Retention Program LOCATION Dedew, New York
Erie County Sewer District No. 4

DEPTH	SAMPLES	SAMPLE NO	BLOWS ON SAMPLER					BLOW ON CASING	SOIL OR ROCK CLASSIFICATION	NOTES
			11	12	13	14	15			
0	/	1	4	3	4	7		Moist loose black fine SAND, some Silt, little fine Gravel (Fill)		
5	/	2	80	25				Moist very compact gr. & blk. f-c SAND, little f-c Gravel, trace clay, trace paper (Fill)		
			30	14		55				
	/	3	4	2				Moist loose green-gray Clayey SILT, trace sand		
			3	4		5				
10	/	4	2	2	2	4		Becomes moist-wet		
15	/	5	2	2				Wet loose gray-brown SILT and fine-coarse Sand, trace gravel, trace clay		
			3	2		5				
	/	6	2	3				Becomes moist-wet, contains little fine Gravel		
			2	2		5				
20	/	7	100	1				Boring Complete with Refusal at 19.1 feet.	1. Free standing water recorded at 8.5 feet in hole at boring completion.	

Blows to drive 2' in 12" with 140 lb. pin wt falling 30" per blow CLASSIFICATION Visual by Geologist

DATE
 STARTED 12/23/82
 FINISHED 12/28/82
 SHEET 1 OF 1

DRILL & TEST, INC.

HOLE NO A-27 ^{REF-2}
 SURF ELEV 640.3
 C W DEPTH See Note

SUBSURFACE LOG

PROJECT Overflow Retention Program LOCATION Depew, New York
Erie County Sewer District No. 4

DEPTH	SAMPLE NO	BLOWS ON SAMPLER				BLOWS ON CASING C	SOIL OR ROCK CLASSIFICATION	NOTES
		4	6	12	18			
0	1	8	12			27	Moist firm black f-c SAND, some Silt, trace clay, trace gravel (Fill)	
5	2	18	100	.2			Moist very compact br. & blk. f-c Sand, little fine Gravel, little Silt trace cinders, trace clay (Fill)	
10	3	12	14			26	Moist firm brown Paper and Wood fibers, little Glass pieces, trace silt (Fill)	
15	4	10	8			13	Moist medium red-brown Silty CLAY, occasional gray Silt seams	
	5	5	6			12	Becomes moist-wet	
20	6	5	7			15	Moist-wet firm brown-gray SILT and f-c Sand, little fine Gravel, trace clay	
	7	8	19	100	.5		Becomes very compact, contains some fine-coarse Gravel (Till)	1. Sample No. 8 no recovery due to soil nature.
	8	85	100	.5			Boring Complete at 24.0 feet.	2. Observation water well installed at 15.0': 0.0'-10.0'-1 1/2" PVC riser. 10.0'-15.0'-1 1/2" PVC well screen. 0.0'-9.0' -Soil back-fill. 9.0'-24.0'-Sand filter
25								3. Free standing water recorded at 12.0' in hole at boring completion.

N = No. blows to drive 2 in 12 in. with 140 lb. piston falling 30 in. per blow CLASSIFICATION Visual
 C = No. blows to drive 2 in. with 140 lb. weight falling 30 in. per blow Geotechnical
 ASTM D 1586, 63 in. Split-Bar Casing.

DATE
 STARTED 12/28/82
 FINISHED 12/28/82
 SHEET 1 OF 1

DRILL & TEST, INC.

HOLE NO A-29 ^{REF}
 SURF ELEV 640.1 ₂
 C W DEPTH See Note

SUBSURFACE LOG

PROJECT Overflow Retention Program
Erie County Sewer District No. 4

LOCATION Depew, New York

DEPTH	SAMPLES	SAMPLE NO	BLOWS ON SAMPLER					BLOWS ON CASING (C)	SOIL OR ROCK CLASSIFICATION	NOTES
			11	14	17	19	21			
0	/	1	5	25					Moist very compact brown Wood FIBERS (Fill)	
			30	20			55			
5	/	2	2	2					Becomes loose, contains some fine-coarse Sand/Cinders, trace slag, trace sand	
			2	7			4			
10	/	3	3	3					Wet loose brown Clayey SILT, trace sand	1. Sample No. 3, strong chemical odor.
			3	3			6			
									Wet loose black fine-coarse SAND, some fine-coarse Gravel, trace silt	
15	/	4	3	3						
			2	3			5			
	/	5	5	8					Becomes firm, brown & gray	
			7	8			15			
20	/	6	3	5					Moist-wet, firm br-gr. Clayey SILT and fine-coarse Sand, some fine-coarse Gravel	
			7	10			12			
	/	7	28	25					Becomes very compact (Till)	
			45	60			70			
	/	8	28	24					Contains and fine-coarse Gravel, some fine-coarse Sand	
			30	100	7.4		54			
25									Boring Complete at 25.0 feet.	2. Observation water well installed at 22.0': 0.0'-17.0'-1½" PVC riser. 17.0'-22.0'-1½" PVC well screen 0.0'-15.0'-Soil back fill. 15.0'-25.0'-Sand filter 3. Free standing water recorded at 18.5' in hole at boring completion.

DRILL & TEST, INC.

Minority Business Enterprise

Carl A. Rosati, Jr., President

Overflow Retention Facility and Pump Station Locations
Erie County Sewer District No. 4
Depew and Lancaster, New York

FREE STANDING WATER LEVELS

<u>Boring No.</u>	<u>Date</u>	<u>Bottom of Hole</u>	<u>Water Depth</u>	<u>Remarks</u>
A-23	12/28/82	17.5'	None at Completion.	-
A-24	12/28/82	11.8'	None at Completion.	-
A-25	1/3/83	8.5'	3.5'	-
A-26	12/28/82	19.1'	8.5'	-
A-27 (Well)	12/28/82	24.0'	12.0'	At completion well installed a 15.0'
A-27	1/5/83	15.10'	11.27'	-
A-27	1/7/83	15.10'	10.75' (9:14 a.m.)	Prior to pump-down of water level
A-27	1/7/83	15.10'	13.02' (9:19 a.m.)	After pump-down.
A-27	1/7/83	15.10'	11.93' (11:43 ")	After partial recovery of well
A-27	1/10/83	15.10'	12.22'	-
A-27	1/12/83	15.10'	12.30'	-
A-27	1/14/83	15.10'	12.76'	-
A-27	1/17/83	15.10'	13.25'	-
A-27	1/19/83	15.10'	13.10'	- 17 2
A-28 (Well)	12/28/82	25.0'	6.0'	At completion well installed @
A-28	1/5/83	19.77'	15.37'	-
A-28	1/7/83	19.77'	15.50' (9:02 a.m.)	Prior to pump-down @water level
A-28	1/7/83	19.77'	18.50' (9:10 a.m.)	After pump-down.
A-28	1/7/83	19.77'	15.59' (11:33 ")	After partial recovery.
A-28	1/10/83	19.77'	15.75'	-
A-28	1/12/83	19.77'	15.41'	-
A-28	1/14/83	19.77'	15.85'	-
A-28	1/17/83	19.77'	16.45'	-
A-28	1/19/83	19.77'	16.50'	-
A-29 (Well)	12/28/82	25.0'	18.50'	At completion well installed
A-29	1/5/83	22.77'	13.15'	-
A-29	1/7/83	22.77'	13.46' (9:26 a.m.)	Prior to pump-down of water level
A-29	1/7/83	22.77'	14.20' (9:31 a.m.)	After pump-down.
A-29	1/7/83	22.77'	13.48' (11:35 ")	After partial recovery.
A-29	1/10/83	22.77'	13.53'	-
A-29	1/12/83	22.77'	15.00'	-
A-29	1/14/83	22.77'	13.85'	-
A-29	1/17/83	22.77'	14.30'	-
A-29	1/19/83	22.77'	14.50'	-

Overflow Retention Facility and Pump Station Locations
 Erie County Sewer District No. 4
 Depew and Lancaster, New York
 Page 2

<u>Boring No.</u>	<u>Date</u>	<u>Bottom of Hole</u>	<u>Water Depth</u>	<u>Remarks</u>
A-30	12/28/83	25.0'	13.5'	At completion well installed @
A-30 (Well)	1/6/83	25.0'	-	-
A-30	1/7/83	24.77'	16.63'	-
A-30	1/10/83	24.77'	16.63' (9:19 a.m.)	Prior to pump-down of water level
A-30	1/10/83	24.77'	16.64' (9:27 a.m.)	After pump-down.
A-30	1/10/83	24.77'	16.70' (10:27 ")	After partial recovery.
A-30	1/12/83	24.77'	16.97'	-
A-30	1/14/83	24.77'	16.90'	-
A-30	1/17/83	24.77'	17.20'	-
A-30	1/19/83	24.77'	17.15'	- 625.25'
A-30	1/21/83	24.77'	16.90'	-
A-31	1/10/83	33.0'	12.0'	-
A-32	12/20/82	24.5'	9.5'	-

HAZARDOUS WASTE SITE PROFILE
REPORT FOR
VILLAGE OF DEPEW
315 BORDEN ROAD, DEPEW
SITE #915105

Prepared by:
Erie County D.E.P.
February 1985
Melvin H. Szymanski
Principal Env. Quality
Technician

ADVISORY NOTE

The information contained in this document is presented to show environmental conditions, comparisons to ambient environmental standards and criteria and compliance status relative to applicable environmental regulations.

Any use of this information to assess the risks to personal or public health, identify potential personal or public liability or to estimate the costs of remedial activity should only be done after consultation with appropriate government agencies or private consultants.

VILLAGE OF DEPEW
315 BORDEN ROAD
DEPEW, NEW YORK 14043
SITE #915105

The site is listed on page 9-311 in the December 1983 Appendix Volume 3 of Hazardous Waste Sites in New York State prepared by N.Y.S. D.E.C.. The site was described as formerly used by the Village of Depew and Arcata Graphics for disposal of paper, dust, wood and general refuse. "There is no evidence of any significant environmental problem," according to the report.

This profile report was prepared for the New York State D.E.C. in accordance with the State/County agreement.

Location

The site is located at 315 Borden Road, Depew, New York adjacent to the north bank of Cayuga Creek.

Background

From conversations with Village of Depew and County of Erie personnel, it was learned the site was used as a landfill for general refuse until 1961. A file review of state and county inspections performed in the 1970's indicate that there was no evidence of landfill activity during that period.

In 1983 ownership of the landfill area was transferred from the Village of Depew to the County of Erie for the purpose of constructing an Overflow Retention Facility (ORF) for the County Sewer District #4. During excavation for ORF construction, a portion of the buried refuse was removed and hauled to Niagara Landfill in the Town of Tonawanda. A survey by Krehbiel Associates, project engineers, estimated that 59,785 cubic yards of material was removed from the site.

NYSDEC, ECDEP and ECHD files do not have any record of any landfill permits issued for this site.

Aerial Photography

Aerial photographs for 1950 and 1960 show a disturbed area in the oxbow bend of Cayuga Creek. The active area did not extend much beyond this bend. In the 1972 photo the area appeared to be covered and graded, but not much vegetation was in evidence.

Field Inspection

A site inspection was conducted on February 13, 1985. The walls of the retention basin had been completed and backfilled. There was no refuse visible on the surface of the backfill material. There was no evidence of leachate running into the creek.

Project progress photos which the contractor provided the county, were reviewed. These photos showed that the excavation went right down to clean earth. A fabric liner was placed on the bottom of the excavation. Crushed stone and gravel were placed on top of the liner to serve as a base for the concrete floor of the basin.

The ORF project should be completed in June of 1985. The area will then be graded and seeded.

Environmental Data

Soil - the soil is sandy and coarse textured with a ph less than 6.5. The soil contains less than 30% sand and less than 18% clay. Permeability is moderately slow.

Bedrock - Limestone bedrock is at depth's greater than 4'.

Water - The natural water table is 3' to 10' below the surface. Surface water will runoff into Cayuga Creek. Although the site is located in the 100 year floodplain, information provided by the Village of Depew Superintendent of Public Works indicated that the Creek rarely overflowed its banks in the site area.

Landuse - Areas immediately to the east and west are open fields. To the north and south areas are residential.

Sampling - There is no record of any soil or groundwater sampling at this site.

Conclusion

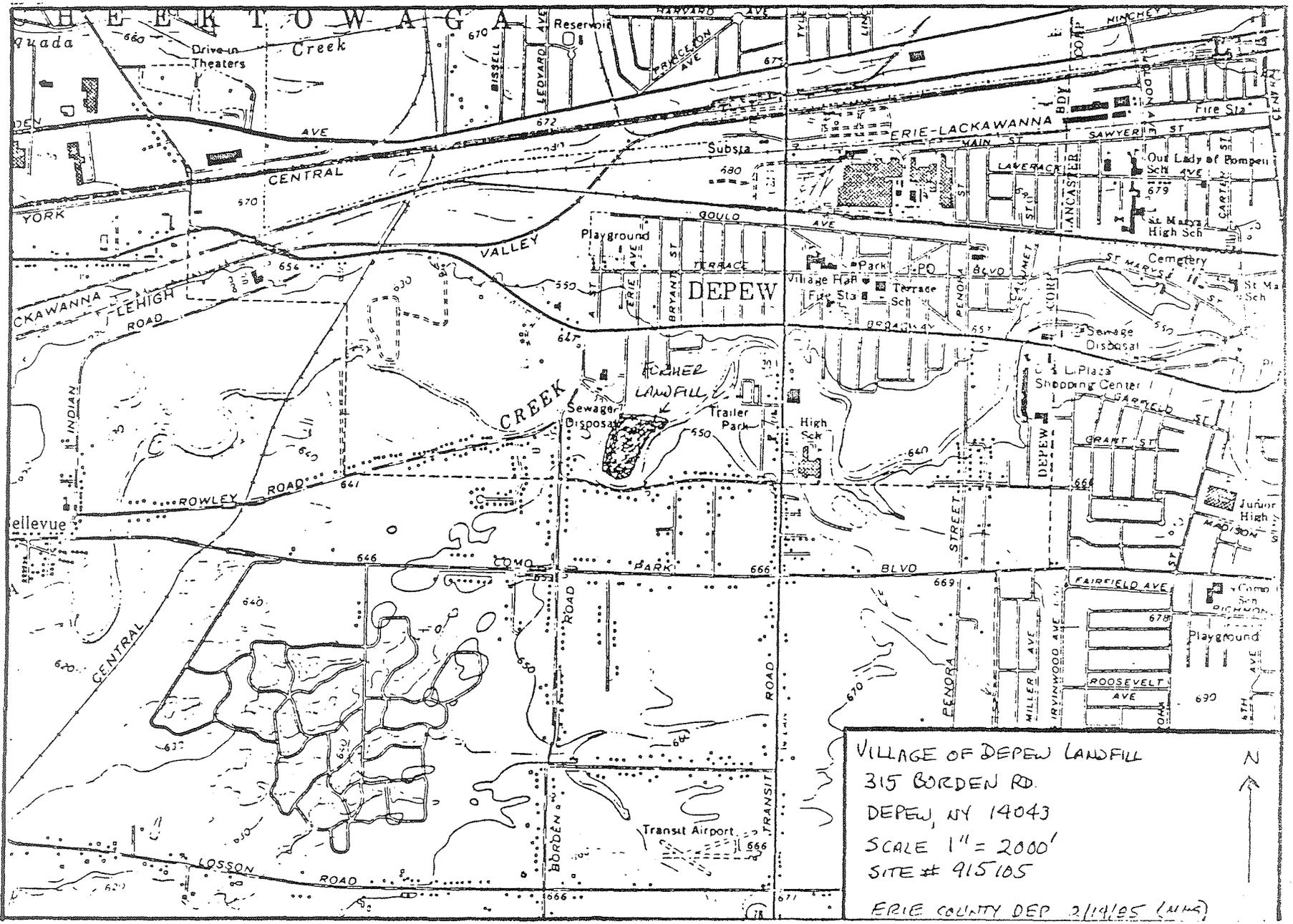
There was no evidence to indicate that any hazardous or toxic material was landfilled at this site. This site does not pose any known threat to the environment.

Recommendation

Upon completion of the ORF project, when grading and seeding is done, a final inspection of the landfill will be conducted. At that time it can be determined if the site should be recommended for removal from the hazardous waste site list.

A copy of this report should be sent to the Secretary of the Erie County Sewer District #4, the current owner of the site.

dc:015

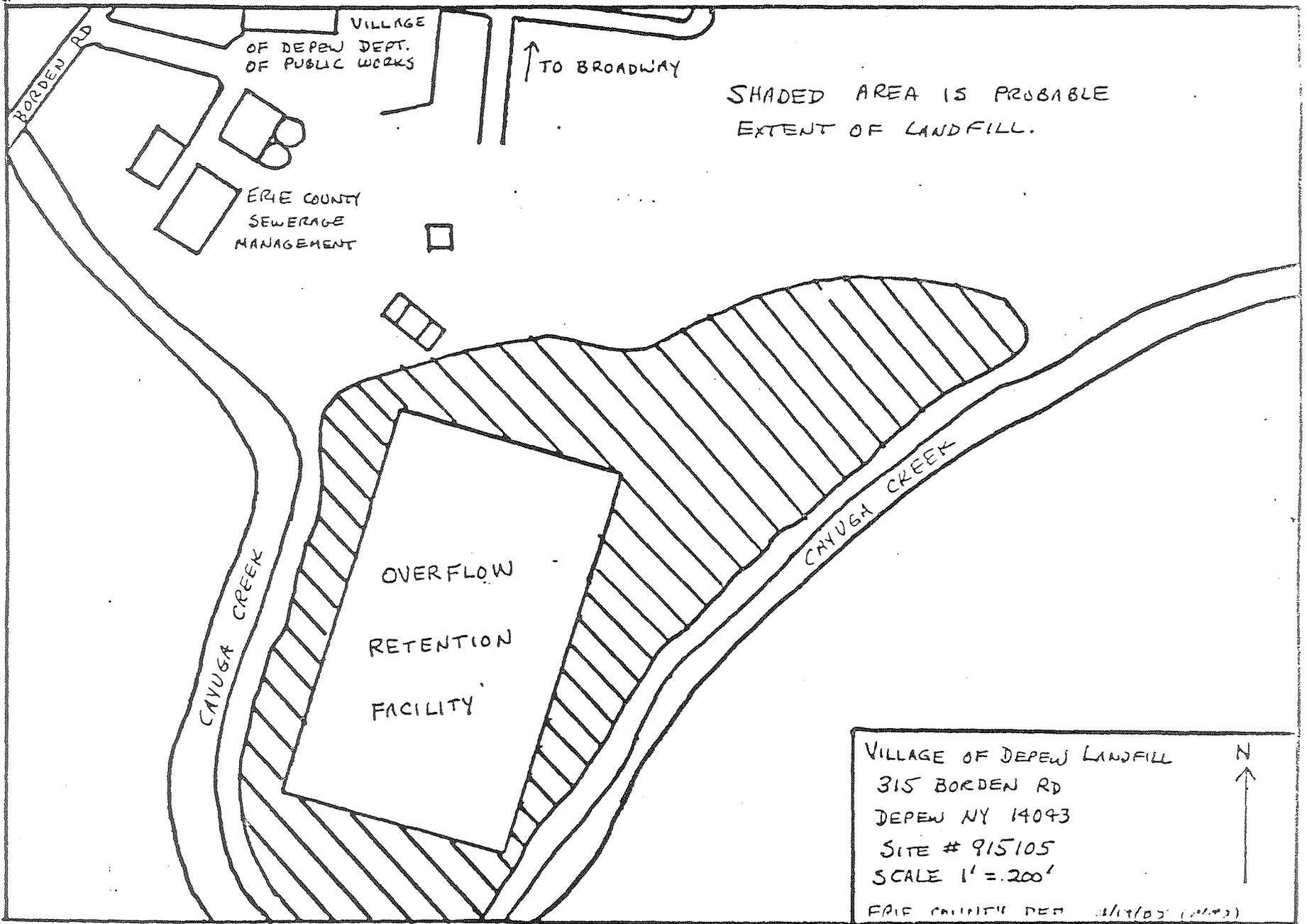


VILLAGE OF DEPEW LANDFILL
 315 BORDEN RD.
 DEPEW, NY 14043
 SCALE 1" = 2000'
 SITE # 915105
 ERIE COUNTY DEP 2/19/85 (LHM)

N
↑

REF. 3

-7-



SHADED AREA IS PROBABLE
EXTENT OF LANDFILL.

VILLAGE OF DEPEW LANDFILL
315 BORDEN RD
DEPEW NY 14093
SITE # 915105
SCALE 1" = .200'
ERIE COUNTY DEP. 3/17/05 (11/03)

REF. 3

A. MAPS PREPARED BY URS ENGINEERS JANUARY 1980

719 - 1A - 0 Slope Soil Interpretation
 719 - 2A - 0 Soil Permeability Interpretation
 719 - 3A - 0 Depth of Bedrock
 719 - 4A - 0 Potential For Overland - Near Surface Flow To Nearby Drainage Ways
 719 - 5A - 0 Depth of Natural Water Tables
 719 - 6A - 0 Soil Slumping & Flooding Potentials
 719 - 7A - 0 Potential of Polluting Regional Internal Watertable
 719 - 8A - 0 Subsoil Reaction Map
 719 - 9A - 0 Bedrock Formation
 719 - 10A - 0 Soil Texture - Soil Structure

DATA SOURCES FOR ABOVE LISTED MAPS

- (1) General Soil Map and Interpretation, Erie County, 1979. USDA
Soil Conservation Service And Cornell University Agricultural
Experiment Station.
- (2) Unpublished Soil Survey Field Sheets, Erie County, N. Y.
National Co-operative Soil Survey
- (3) Geology Of Erie County, E. T. Buehler, I. H. Tesmer,
Buffalo Society of Natural Sciences Bulletin, Vol. 21 # 3.

B. FLOOD PLAINS - NATIONAL FLOOD INSURANCE PROGRAM MAPS APR. 30, 1983C. WETLANDS - NYS/DEC MAPS WETLAND INVENTORY PREPARED BY ECDEP
PLANNING DIVISION MAY 1981. UPDATED NOV. 1984.D. AERIAL PHOTOGRAPHY

- 1951 - U. S. Dept. Of Agriculture, Production & Marketing
Administration (Robinson Aerial Surveys, Flying Completed Oct. 18, 1951)
 1960 - Erie County Planning Board (American Air Surveys Inc.,
Flights on April 28, 1960 and May 2, 1960)
 1972 - Erie County (Aero Service, Houston, Tex, Flights in Spring
and Fall of 1972).

PERSONNEL INTERVIEWED

1. Ron Pontrello, Asst. Project Engr., ECDEP Sewerage Manage-
ment (Dist. #4).
(On site Feb. 13, 1985, Telecons Feb.19, 1985 & Mar.6,1985).
2. Ron Kreavy, Sewer Insp., ECDEP Sewerage Management (Dist.#4)
(On site Feb. 13, 1985).
3. Vincent LiPuma, Supt. of Public Works, Village of Depew
(Telecons Feb. 19, 1985 & Mar. 26, 1985).

ERIE COUNTY



50,000 foot grid based on New York coordinate System, east zone

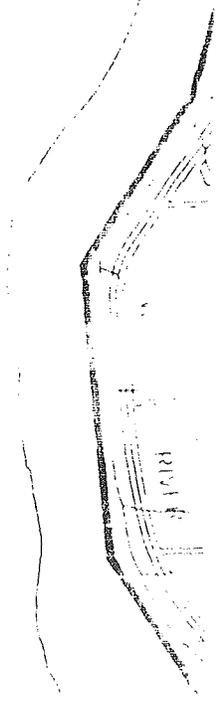
ERIE COUNTY PLANNING DEPARTMENT

1980 CENSUS TRACTS

- Tract Boundaries
- Tract Boundaries Extending to the International Boundary
- Tract Portion

Source: U S Bureau of the Census 1980.
 Prepared: Erie County Department of Environment and Planning,
 Division of Planning October 1980.

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US CENSUS DATA, 1980

US Census Data used in the HRS scoring was obtained from various County Planning Offices. This data was not obtained from a report. The raw census data combined with County Planning Maps was used to estimate the population within 1, 2, 3, and 4 miles of the Phase I site being investigated. Because of the voluminous amount of data used, the data is not provided in this Appendix.

REF. 5

ES AND D&M SITE INSPECTION

Observations made during the ES and D&M Site Inspections are provided on US EPA Forms 2070-12 and 2070-13. Field notes were used to complete these EPA Forms, and are not included herein.

REF-6

KREHBIEL ASSOCIATES INC.

1870 NIAGARA FALLS BLVD . TONAWANDA, N.Y. 14150
716-693-9300

ENGINEERS
SURVEYORS
ARCHITECTS
CONSTRUCTION MANAGERS
PLANNERS
ENERGY CONSULTANTS

January 20, 1986

Engineering-Science, Inc.
Two Flint Hill
10521 Rosehaver Street
Fairfax, VA 22030-2899

Attention: Cathy J. Bosma
Civil Engineer

Re: Village of Depew
Overflow Retention Facility

Dear Ms. Bosma:

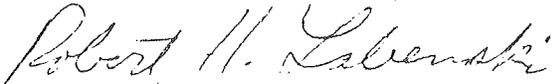
This letter is to confirm our telephone conversation of Wednesday, January 15, 1986 regarding the dump site in the Village of Depew.

We have reviewed our files on the Overflow Retention Facility project and they indicate that phenol was present in the foundry sand used for cover materials and that the Buffalo Office of the New York State Department of Environmental Conservation was made aware of this. No tests were made of this material and to the best of our knowledge, no records are available as to the quantity on that site.

If you have any questions or comments, please feel free to call.

Very truly yours,

KREHBIEL ASSOCIATES, INC.



Robert H. Labenski, P.E.

RHL/crm
86K01
m-202

REF-17

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE I INVESTIGATION

Lancaster Reclamation
Town of Lancaster

Site No. 915069
Erie County

Date: May 1985



Prepared for:
New York State
Department of
Environmental Conservation

50 Wolf Road, Albany, New York 12233
Henry G. Williams, *Commissioner*

Division of Solid and Hazardous Waste
Norman H. Nosenchuck, P.E., *Director*

By:
ENGINEERING-SCIENCE
In Association With
DAMES & MOORE

SITE CONTAMINATION

The 13-acre Lancaster Reclamation, Inc. site has been used as an industrial waste landfill since 1976. The waste types and quantities of waste disposed at the site are presented in Table IV-1. Also shown are hazardous constituents of concern. A detailed constituent analysis of each waste is given in the Appendix.

Beginning in 1976, Lancaster Reclamation, Inc. landfilled on-site, bentonite clay slurry and foundry sand in four excavated lagoons on the southern portion of the site (see Figure IV-1). The bentonite slurry contained 90% water; 96,000 cubic yards were placed in the lagoons and dewatered by evaporation prior to burial. Foundry sand was also used to thicken the slurry. In the 1980's the clay slurry was thickened before landfilling (Ferry, 1985). Analytical data on filtrate (i.e., water fraction) of the slurry indicates the presence of zinc, chlorides and TOC (see Appendix). The concentration of zinc exceeds the limits for discharge to groundwaters in New York State. A leachate test also found significant concentrations of phenol in the foundry sand that was landfilled with the clay slurry. Both the bentonite slurry and the foundry sand wastes were generated by Dresser Industries (Wendel Engineers, 1976).

Beginning in 1978, approximately 1.7 million gallons of foundry sand slurry were placed in the lagoon (Ferry, 1985). The slurry consisted of sand fines produced from foundry wastewater treatment at the Chevrolet Division of General Motors in Tonawanda, New York. The slurry contained 65% water and dewatering was accomplished by (1) injecting air into the waste to promote evaporation, or (2) decanting the liquid and applying it on the land by spray irrigation (Wendel Engineers, 1979). An analysis of several waste streams contained in the slurry found significant amounts of oil (up to 21,000 ppb) and detectable amounts of PCBs. Leachate tests also revealed concentrations of selenium, cadmium, and lead in excess of New York State's discharge limits to groundwaters; however, concentrations in leachate did not exceed the levels established for EP toxicity.

Beginning in January 1979, an asbestos-containing waste slurry consisting of 20% portland cement, 5% asbestos, 10% glass fibers and 65% water was pumped into the waste lagoons. The slurry was dewatered using the same techniques described for the bentonite and foundry sand slurries. Aware that the spray irrigation and air sparging methods could potentially increase the potential for airborne entrainment of asbestos, the Town Board of the Town of Lancaster restricted the disposal of the asbestos slurry in June 1979. By then, a total of 7,000 gallons of the asbestos slurry had been disposed at the facility (Ferry, 1985).

In October 1980, Lancaster Reclamation, Inc. began accepting shot blast dust generated from steel casting operations at Dresser Industries. Prior to disposal, the shot blast was mixed with foundry sand. The estimated quantity of this shot blast dust is included in the estimated for the foundry sand presented in Table IV-1. A leachate analysis of the shot blast dust found concentrations of phenol in excess of NYS limits for discharge to groundwaters.

Starting in June 1981, Lancaster Reclamation, Inc. received 120,000 gallons of wallpaper production wastes from Reed Holdings, Inc. (Ferry, 1985). The wastes included surface print waste, prepaste polymer and prepaste alkali. A description of the composition of each waste type is presented in the Appendix. EP Toxicity tests were also conducted on each waste and results of the tests show that the contaminants analyzed for were below the test limits. However, other organic pollutants which may be present (e.g., solvents) in these wastes were not tested for.

In 1982 and 1983, Lancaster Reclamation, Inc. disposed 9,000 cubic yards of oil sludge from bus garage catch basins (Ferry, 1985). These sludges were received from the Sweet Home Central School and Ormsby Vocational School bus garages. The oil and grease content of the Sweet Home Central School sludge was 3.07%. To prevent oil from leaching from the waste, the NYSDEC requested that Lancaster Reclamation, Inc. mix the oily sludge with diatomaceous earth (NYSDEC, 1982).

Since 1980, Lancaster Reclamation, Inc. has conducted semi-annual water analyses of surface water and groundwater. Surface waters from the southeast lagoon and an aerated basin in the northeast portion of the site called the "green machine" were included. During these sampling efforts, groundwater samples were collected from a monitoring well in the eastern portion of the site and a deep water supply well located in an on-site barn. Samples were sent to ARO Corporation Environmental Laboratory for analysis of conductivity, pH, phenols, TOC and iron.

Presented in Table IV-2 are the analytical results for phenol and TOC of the groundwater monitoring conducted at the Lancaster Reclamation site from January 1980 until March 1984. The concentrations of phenols in the west well are below the water quality standards for Class GA groundwater standards with the exception of one sampling event conducted in February 1981 (0.003 mg/l). However, the west well occurs in the deep bedrock aquifer which may not be hydraulically connected to the lagoon waters containing higher concentrations of phenols (see Table IV-3).

The concentrations of phenol in the east well are higher as compared to the west well. Phenol concentrations have exceeded the Class GA groundwater standards for all but one of the sampling events over the same period of time. However, the east well occurs in a shallow aquifer which is more likely to be hydraulically connected to the contaminated cell and surface waters.

Presented in Table IV-3 are the results for phenols and TOC of surface water monitoring conducted at the Lancaster Reclamation site. As indicated in the table, the concentration of phenols in all of the surface impoundments has exceeded the water quality standards for Class GA waters in New York State on several of the sampling events. However, with the exception of these excursions, the concentrations of phenols are low. TOC concentrations are also generally found at insignificant concentrations in the surface impoundments.

TABLE IV-2

SUMMARY OF GROUNDWATER DATA FOR SELECTED PARAMETERS FOR THE LANCASTER RECLAMATION SITE

Parameter (mg/l)	Groundwater Quality Standards ^a	East Well	West Well
<u>March 1984</u>			
Phenol	0.001	< 0.09	< 0.001
TOC	---	18.8	13.2
<u>June 1983</u>			
Phenol	0.001	0.010	< 0.001
TOC	---	8.4	9.1
<u>July 1983</u>			
Phenol	0.001	< 0.001	< 0.001
TOC	---	7.9	3.7
<u>April 1982</u>			
Phenol	0.001	0.040	< 0.001
TOC	---	11.2	3.8
<u>August 1981</u>			
Phenol	0.001	< 0.001	< 0.001
TOC	---	1.0	16.5
<u>February 1981</u>			
Phenol	0.001	0.010	0.003
TOC	---	6.5	3.0
<u>October 1981</u>			
Phenol	0.001	0.044	< 0.001
TOC	---	6.1	3.4
<u>June 1980</u>			
Phenol	0.001	0.068	< 0.001
TOC	---	8.0	3.4
<u>January 1980</u>			
Phenol	0.001	0.125	< 0.001
TOC	---	8.7	22.6

SOURCE: ARO Corporation, Analytical Results for Lancaster Reclamation

^a Water Quality Standards for Class GA Groundwater for the State of New York.

REF.

TABLE IV-3

SUMMARY OF SURFACE WATER DATA FOR SELECTED PARAMETERS
FOR THE LANCASTER RECLAMATION SITE

Parameter (mg/l)	Groundwater Quality Standards ^a	Final Pond	Southeast Cell	Green Machine
<u>March 1984</u>				
Phenol	0.002	< 0.001	0.023	< 0.001
TOC	---	14.4	15.5	22.9
<u>June 1983</u>				
Phenol	0.002	< 0.001	0.001	< 0.001
TOC	---	5.2	4.8	2.4
<u>July 1983</u>				
Phenol	0.002	< 0.001	< 0.001	< 0.001
TOC	---	3.7	32	7.9
<u>April 1982</u>				
Phenol	0.002	< 0.001	< 0.001	0.003
TOC	---	7.8	11.2	7.8
<u>August 1981</u>				
Phenol	0.002	< 0.001	< 0.001	< 0.001
TOC	---	5.0	5.0	14.0
<u>February 1981</u>				
Phenol	0.002	0.005	0.086	0.018
TOC	---	< 0.5	2.0	6.5
<u>October 1981</u>				
Phenol	0.002	< 0.001	< 0.001	< 0.001
TOC	---	9.6	6.7	2.1
<u>June 1980</u>				
Phenol	0.002	< 0.001	< 0.001	< 0.001
TOC	---	5.0	13.0	14.0
<u>January 1980</u>				
Phenol	0.002	< 0.001	< 0.001	< 0.001
TOC	---	30.0	24.5	27.8

SOURCE: ARO Corporation, Analytical Results for Lancaster Reclamation

^a Water Quality Standards for Class GA Groundwater for the State of New York.

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE I INVESTIGATION

Land Reclamation
Town of Cheektowaga

Site No. 915070
Erie County

Date: May 1985



Prepared for:
New York State
Department of
Environmental Conservation

50 Wolf Road, Albany, New York 12233

Henry G. Williams, *Commissioner*

Division of Solid and Hazardous Waste

Norman H. Nosenchuck, P.E., *Director*

By:

ENGINEERING-SCIENCE

In Association With

DAMES & MOORE

heavy metals (i.e., lead, cadmium, and manganese) in several of the samples collected exceeded the effluent water quality standards for Class GA groundwater in the State of New York. Furthermore, all of the samples analyzed had phenol concentrations which exceeded the ground-water standards.

Surface water samples were collected from seven sampling sites at the Land Reclamation Landfill site. Table IV-5 shows those parameters that were found at concentrations exceeding the NYS effluent standards for Class GA surface waters. These include chloride, sodium, arsenic, chromium, lead, and mercury. Phenols and PCBs (Aroclor 1248) also exceeded state standards. The remaining surface water data collected during the hydrogeologic investigation are presented in the Appendix.

Table IV-6 lists the location of each sampling point, the potential sources of contamination at that point, and the contaminants which exceed NYS standards. As can be seen from the table, interpretation of surface water data is limited by the fact that the landfill is not the only potential source of the metals and organic compounds listed in Table IV-4. These additional sources include the Depew Sewage Treatment Plant, located upstream of SP1, and stormwater runoff from Indian Road (transported by a sewer pipe that underlies the landfill site). Therefore, without sufficient background data that further defines the nature of these potential sources, it is not possible to definitively attribute the observed contaminants to a source.

Routine Monitoring

Groundwater and surface water monitoring has been conducted at the Land Reclamation Landfill since the hydrogeologic investigation was completed in 1979. For approximately one and one-half years, the surface water points and the groundwater monitoring wells were monitored and analyzed for an expanded list of parameters. This monitoring effort was conducted to establish baseline water quality data. With the exception of December 1983 and March 1984, the landfill has since been monitored on a quarterly basis for indicator parameters only (pH, chloride, con-

TABLE IV-3
 SUMMARY OF WATER QUALITY ANALYSES FROM TEST PITS
 AT THE LAND RECLAMATION LANDFILL SITE

Parameter (mg/l)	Groundwater Quality Standard ^a	TP3 3/8/79	TP4 3/21/79	TP12 3/8/79
Lead	0.025	0.61	< 0.02	0.96
Mercury	0.002	< 0.002	< 0.0005	0.02
Iron	0.30	17	0.05	100
Manganese	0.30	3.8	0.62	4.7
Cadmium	0.01	0.015	0.010	0.022
Phenols	0.001	2.2	0.21	0.78
PCBs (ug/l) (Aroclor 1248)	0.10	0.36	---	---



SOURCE: RECRA Research and Wehran Engineering, 1979.
^a 1978 NYS Effluent Standards for Class GA Groundwaters.

TABLE IV-4
 SUMMARY OF 1979 GROUNDWATER DATA FOR SELECTED PARAMETERS
 FOR THE LAND RECLAMATION LANDFILL SITE

Parameter (mg/l)	Groundwater Quality Standards ^a	Well 1		Well 2		Well 3	
		3/8	3/21	3/8	3/21	3/8	3/21
Phenol	0.001	0.027	<0.005	0.040	<0.005	0.011	<0.005
Lead	0.025	<0.03	< 0.02	< 0.03	< 0.02	< 0.03	< 0.02
Cadmium	0.010	0.005	0.006	0.002	0.012	0.003	0.010
Manganese	0.3	0.09	0.03	1.2	1.0	0.17	0.17

SOURCE: RECRA Research and Wehran Engineering, 1979.

^a 1978 NYS Effluent Standards for Class GA Groundwaters.

TABLE IV-5

SUMMARY OF 1979 SURFACE WATER MONITORING AT THE LAND RECLAMATION LANDFILL SITE

Test Site and Date	Chloride (mg/l)	TOC (mg/l)	Phenols (mg/l)	TOX (ug/l)	PCB (ug/l)	Arsenic (mg/l)	Chromium (mg/l)	Lead (mg/l)	Manganese (mg/l)	Mercury (ug/l)	Sodium (mg/l)
Water Quality ^a Std.	500	---	0.002	---	0.10	0.05	0.10	0.05	0.6	4.0	---
S1 - 3/8	31.4	12.4	0.014	0.81	< 0.10	7.9	< 0.003	< 0.03	0.02	1.0	8.7
3/21	18.6	12.2	0.007	0.14	< 0.10	< 1.3	< 0.003	< 0.02	0.02	< 0.5	7.3
S2 - 3/8	27.5	12.5	0.008	0.20	< 0.10	5.8	< 0.003	0.13	0.04	< 0.8	6.9
3/21	17.1	15.6	< 0.005	0.10	< 0.10	< 1.3	0.260	< 0.02	0.03	< 0.5	7.0
S3 - 3/8	1,460	150,000	0.27	3.27	4.05	5	< 0.003	0.03	1.5	< 0.8	590
3/21	1,270	24.3	0.051	0.18	< 0.10	< 1.3	0.010	< 0.02	1.4	< 0.5	546
S4 - 3/8	660	64.0	0.10	0.54	< 0.10	5.6	< 0.003	0.03	0.66	< 0.8	230
3/21	870	78.7	0.10	0.18	< 0.10	< 1.3	0.006	< 0.02	1.2	< 0.5	343
S5 - 3/8	30	13.1	0.018	0.38	< 0.10	< 5	0.003	< 0.03	0.05	< 0.8	8.6
3/21	22.8	24.0	0.027	0.10	< 0.10	< 1.3	0.070	0.03	0.08	< 0.5	8.8
S6 - 3/8	11.2	16.1	0.012	0.46	< 0.10	< 5	< 0.003	< 0.03	0.04	< 0.8	8.5
3/21	17.8	15.4	---	0.29	< 0.10	< 1.3	0.030	0.07	0.02	< 0.5	10.9
S7 - 3/8	23.0	15.0	0.068	0.28	< 0.10	6.3	< 0.003	0.18	0.04	0.9	7.7
3/21	19.4	17.4	0.006	0.15	< 0.10	< 1.3	0.192	< 0.02	0.02	< 0.5	11.8

SOURCE: RECRA Research and Wehran Engineering, 1979

^a 1978 NYS Effluent Standards for Class GA Surface Waters

REF. 38

INTERVIEW FORM

INTERVIEWEE/CODE Vince LiPuma (Village of Depew)
Bob Labinski (Krehbiel Associates) /

TITLE - POSITION _____

ADDRESS _____

CITY Village of Depew STATE NY ZIP _____

PHONE () LiPuma - 716-683-5700 RESIDENCE PERIOD _____ TO _____

LOCATION Labinski - 716-693-9300 INTERVIEWER Cathy J. Bosma

DATE/TIME 2-12-88 / 1 p.m. - 1:30 p.m.

SUBJECT: Phase I Site Investigation - Village of Depew Landfill

REMARKS: I asked about the use of Cayuga Creek. Responses-

Bob Labinski - No authorized swimming. Kids fish in creek. No boating
Water is not used for drinking water within 3 miles of the
site. The towns and villages within 3 miles receive drinking
water for Erie County Water Authority who draws water from
Lake Erie.

Vince LiPuma - Kids fish for bass and salmon in the creek. No recreational
use. No knowledge of drinking water use.

I agree with the above interview summary:

Signature/Title:

Comments:

INTERVIEW FORM

INTERVIEWEE/CODE Bob Labinski (Krehbiel Associates) and 1

TITLE - POSITION Vince LiPuma (Village of Depew)

ADDRESS _____

CITY Village of Depew STATE NY ZIP _____

PHONE () _____ RESIDENCE PERIOD _____ TO _____

LOCATION: Lipuma - (716) 683-5700
Labinski - (716) 693-9300 INTERVIEWER Natty J. Brown

DATE/TIME 2-12-88 1:1 pm - 1:30 pm

SUBJECT: Phase I Site Investigation - Village of Depew, Landfill

REMARKS: I Asked about the use of Cayuga Creek. Response -
Bob Labinski: No authorized swimming. Kids fish
in the creek. No boating.
Water is not used for drinking water within
3 miles of the site. The towns and
villages within 3 miles receive drinking
water from Erie Co. water authority who draws
water from Lake Erie.

Vince LiPuma: Kids fish for bass and salmon
in the creek.
No recreational use
No knowledge of drinking water use.

I agree with the above interview summary: _____

Signature/Title: _____

Comments: _____

INTERVIEW FORM

INTERVIEWEE/CODE Mr Martin 1
 TITLE - POSITION Mechanic Engineer - Dresser Industries
 ADDRESS #2 Main St.
 CITY Depew STATE NY ZIP 14043
 PHONE (716) 683-6003 RESIDENCE PERIOD _____ TO _____
 LOCATION _____ INTERVIEWER Cathy J. Brown
 DATE/TIME 1-17-86 1 10:10 am
 SUBJECT: Village of Depew Landfill - Phase I Site Investigation

REMARKS: Mr. Martin was not aware of foundry sands being placed in the Village of Depew Landfill, or whether the sands had been tested for phenolic compounds. Foundry sands, starting in the late 1950's, contained phenolic binders (resins).

Mr. Martin will check to see if anyone else at Dresser is aware of heavy phenolic testing of foundry sands.

Quantity of foundry sand placed at Village of Depew Landfill is unknown. Foundry sands from Dresser were sent to several locations in the area.

I AGREE WITH THE ABOVE SUMMARY OF THE INTERVIEW:

SIGNATURE: [Signature]

COMMENTS: Nae

Mc Murray, 1/86

REF-
11

INTERVIEW FORM

INTERVIEWEE/CODE Mike Mc Murray /

TITLE - POSITION Environmental Analyst

ADDRESS 600 Delaware Ave

CITY Buffalo STATE NY ZIP 14202

PHONE (716) 847-4551 RESIDENCE PERIOD TO

LOCATION: DEC Regulatory Affairs-Buffalo INTERVIEWER Eric Nye - D&M

DATE/TIME 1/3/86 /

SUBJECT: Wetlands & flood info - Region 9

REMARKS: Met with Mike who gave me access to both wetland and floodway
maps for local region.

*Also left site locations for the identification of wildlife critical
habitat and national wildlife refuges

There is a wetland located 0.8 miles from site (NW-LA-7)

I agree with the above interview summary:

Signature/Title: /s/ Mike McMurray - Environmental Analyst

Comments:

INTERVIEW FORM

INTERVIEWEE/CODE ~~Mc Murray~~ MIKE MACAURRY Mc Murray

TITLE - POSITION ENVIRONMENTAL ANALYST

ADDRESS 600 Delaware Ave

CITY Buffalo STATE N.Y. ZIP 14202

PHONE (716) 642-215 847-4551 RESIDENCE PERIOD _____ TO _____

LOCATION DEC REGULATORY AFFAIRS INTERVIEWER ERIC NYE - DIM

DATE/TIME 1/3/86 / BUFFALO

SUBJECT: WETLANDS & FLOOD INFO - REGION 9

REMARKS: MET WITH MIKE WHO GAVE ME ACCESS TO BOTH WETLAND
AND FLOODWAY MAPS FOR THE LOCAL REGION

ALSO LEFT SITE LOCATIONS FOR THE IDENTIFICATION OF WILDLIFE
CRITICAL HABITAT & NATIONAL WILDLIFE REFUGES

There is a wetland located 0.8 miles from site
(NW-LA-7)

I agree with the above interview summary:

Signature/Title: Michael J. Mc Murray, Environmental Analyst

Comments:

REF-
12

NYS WETLANDS MAPS

NYS Wetlands Maps were reviewed during the Phase I investigation. Individual maps for each site were not obtained and are, therefore, not included in the Phase I reports. Site specific information collected concerning the location of a wetland within 1 mile of a given site is recorded in the documentation section of each report.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE
INACTIVE HAZARDOUS WASTE DISPOSAL SITE REPORT

CLASSIFICATION CODE: 2a REGION: 9 SITE CODE: 915105

NAME OF SITE : Village of Depew
STREET ADDRESS: 315 Borden Road
TOWN/CITY: COUNTY: ZIP:
Depew Erie

SITE TYPE: Open Dump- Structure- Lagoon- Landfill-X Treatment Pond-
ESTIMATED SIZE: Acres

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME....: Village of Depew
CURRENT OWNER ADDRESS.: Gould Ave., Depew, NY 14043
OWNER(S) DURING USE...: Village of Depew
OPERATOR DURING USE...: Village of Depew
OPERATOR ADDRESS.....: Gould Ave., Depew, NY 14043
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From Unknown To 1977

SITE DESCRIPTION:
This site was formerly used by the Village of Depew and Arcata Graphics to dispose of paper, dust, wood and general refuse.

HAZARDOUS WASTE DISPOSED:	Confirmed-	Suspected	-X
TYPE	QUANTITY (units)		
None Known			

SITE CODE: 915105

ANALYTICAL DATA AVAILABLE:

Air- Surface Water- Groundwater- Soil- Sediment- None-X

CONTRAVENTION OF STANDARDS:

Groundwater- Drinking Water- Surface Water- Air-

LEGAL ACTION:

TYPE.: None State- Federal-
 STATUS: In Progress- Completed-

REMEDIAL ACTION:

Proposed- Under Design- In Progress- Completed-
 NATURE OF ACTION: None

GEOTECHNICAL INFORMATION:

SOIL TYPE: Not Known
 GROUNDWATER DEPTH: Not Known

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

There is no evidence of any significant environmental problem. The site should be closed properly.

ASSESSMENT OF HEALTH PROBLEMS:

Insufficient Information

PERSON(S) COMPLETING THIS FORM:

NEW YORK STATE DEPARTMENT OF
 ENVIRONMENTAL CONSERVATION

NEW YORK STATE DEPARTMENT
 OF HEALTH

NAME.: J. Heil, P.E.
 TITLE: Assoc. San. Eng.

NAME.: R. Tramontano
 TITLE: Bur. Tox. Sub. Asses.

NAME.: R.A. Olazagasti
 TITLE: SWMS

NAME.:
 TITLE:

DATE.: 01/10/85

DATE.: 01/10/85

INTERVIEW FORM

INTERVIEWEE/CODE John Ozard /

TITLE - POSITION Senior Wildlife Biologist, Significant Habitat Unit

ADDRESS NYSDEC Wildlife Resources Center, Building 8

CITY Delmar STATE NY ZIP 12054

PHONE (518) 439-7486 RESIDENCE PERIOD _____ TO _____

LOCATION: phone conversation INTERVIEWER Lisa A. Ryan

DATE/TIME Jan. 17, 1986 / 3:00 p.m.

SUBJECT: Sensitive environments in NY

REMARKS: There are no federally designated critical habitats of endangered species located within New York State

There are 16 map sets (1:250000) which show ecologically significant areas within the state and copies will be sent to us for future use.

I AGREE WITH THE ABOVE SUMMARY OF THE INTERVIEW:

SIGNATURE: /s/ John W. Ozard

COMMENTS: The 1:250000 scale maps show state potent, significant wildlife habitats.

INTERVIEW FORM

INTERVIEWEE/CODE John O'gard /
 TITLE - POSITION Senior Wildlife Biologist, Significant Habitat Unit
 ADDRESS NYSDEC Wildlife Resources Center, Building 8
 CITY Delmar STATE N.Y. ZIP 12054
 PHONE (518) 439-7486 RESIDENCE PERIOD _____ TO _____
 LOCATION: phone conversation INTERVIEWER Dea A. Ryan
 DATE/TIME Jan 17, 1986 / @ 3:00
 SUBJECT: Sensitive Environments in N.Y.

REMARKS:

- There are no federally designated critical habitats of endangered species located within New York State.
- There are 16 map sets (1:250000) which show ecologically significant areas within the state and copies will be sent to us for future use.

I AGREE WITH THE ABOVE SUMMARY OF THE INTERVIEW:

SIGNATURE:

COMMENTS:



**New York State Atlas of
Community Water System Sources
1982**

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF PUBLIC WATER SUPPLY PROTECTION

NY007 1182
REF- 15

New York State Atlas of Community Water System Sources 1982

NEW YORK STATE
DEPARTMENT OF HEALTH

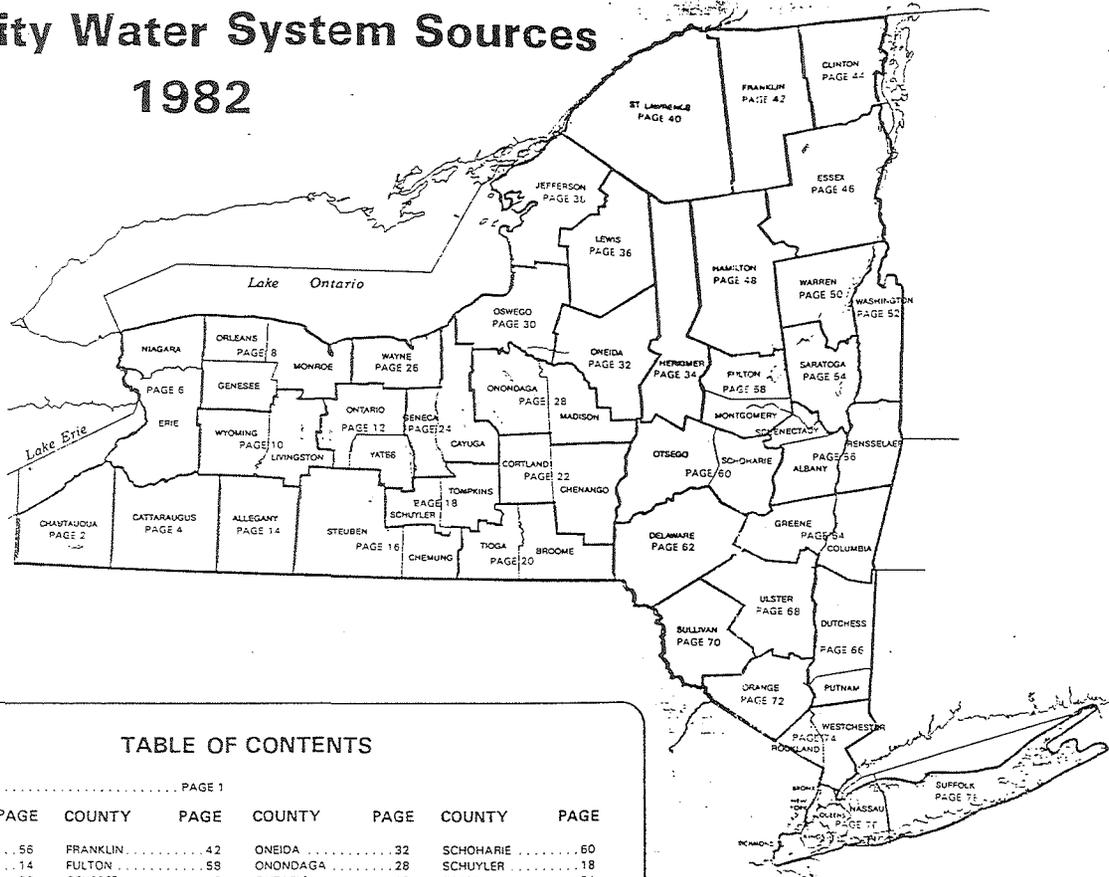


TABLE OF CONTENTS

COUNTY	PAGE	COUNTY	PAGE	COUNTY	PAGE	COUNTY	PAGE
ALBANY	56	FRANKLIN	42	ONEIDA	32	SCHOHARIE	60
ALLEGANY	14	FULTON	59	ONONDAGA	28	SCHUYLER	18
BRONX	76	GENESEE	8	ONTARIO	12	SENECA	24
BROOME	20	GREENE	64	ORANGE	72	STEBUEN	16
CATTARAUGUS	4	HAMILTON	48	ORLEANS	8	SUFFOLK	78
CAYUGA	24	HERKIMER	34	OSWEGO	30	SULLIVAN	70
CHAUTAUQUA	2	JEFFERSON	38	OTSEGO	60	TIOGA	20
CHEMUNG	16	KINGS	76	PUTNAM	66	TOMPKINS	18
CHENANGO	22	LEWIS	36	QUEENS	76	ULSTER	68
CLINTON	44	LIVINGSTON	10	RENSSELAER	56	WARREN	50
COLUMBIA	64	MADISON	28	RICHMOND	76	WASHINGTON	52
CORTLAND	22	MONROE	8	ROCKLAND	74	WAYNE	26
DELAWARE	62	MONTGOMERY	58	ST. LAWRENCE	40	WESTCHESTER	74
DUTCHESS	66	NASSAU	76	SARATOGA	54	WYOMING	10
ERIE	6	NEW YORK	76	SCHENECTADY	56	YATES	12
ESSEX	46	NIAGARA	6				

LEGEND

BOUNDARIES AND PLACES

International	-----
State	-----
County	-----
Town	-----
Indian Reservation	-----
City	-----
Village	-----
Unincorporated Place	-----
Federal Reservation	-----

CLASSIFICATION OF POPULATED PLACES

100,000 or more	.....	YONKERS
50,000 to 100,000	.....	Levittown
12,500 to 50,000	.....	Poughkeepsie
2,500 to 12,500	.....	Hampton Bays
250 to 2,500	.....	Boiceville
250 or less	.....	Cornet

TRANSPORTATION

Highways

Divided Highways	-----	UNDER CONSTRUCTION
Full Control of Access	-----	-----
Partial or No Control of Access	-----	-----
Undivided Highway	-----	-----
Interchange	-----	-----
Touring Route (State, U.S., Interstate) or State Parkway	-----	-----
Touring Route Markers	-----	-----
State: U.S., Interstate	-----	-----

Railroads

Operating Line	-----	Service Discontinued	-----
Operator	-----	DELAWARE AND HUDSON	-----
Owner (If Other than Operator)	-----	IRISH CENTRAL	-----
Company Having Trackage Rights	-----	(CORRAL)	-----

Airports (Open to the Public, Military)

Runway under 4000'	-----	Runway over 4000'	-----
--------------------	-------	-------------------	-------

Rest Areas

Food, Gas, Rest Rooms	-----	Rest Rooms	-----
Gas, Rest Rooms	-----	Parking Only	-----

RECREATION FACILITIES

State or National Recreation Area	-----
State Campground	-----
State Boat Launching Site	-----
State Canal Park	-----
State Fish Hatchery	-----
Other State Recreation Site	-----

REF

15

ERIE COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
Municipal Community			
	Akron Village (See No 1 Wyoming Co, Page 10)	3640	
1	Alden Village	3460	Wells
2	Angola Village	8500	Lake Erie
3	Buffalo City Division of Water	357870	Lake Erie
4	Coffee Water Company	210	Wells
5	Collins Water District #3	704	Wells
6	Collins Water Districts #1 and #2	1384	Wells
7	Erie County Water Authority (Sturgeon Point Intake)	375000	Lake Erie
8	Erie County Water Authority (Van DeWater Intake)	NA	Niagara River - East Branch
9	Grand Island Water District #2	9390	Niagara River
10	Holland Water District	1670	Wells
11	Lawtons Water Company	138	Wells
12	Lockport City (Niagara Co)		Niagara River - East Branch
13	Niagara County Water District (Niagara Co)		Niagara River - West Branch
14	Niagara Falls City (Niagara Co)		Niagara River - West Branch
15	North Collins Village	1500	Wells
16	North Tonawanda City (Niagara Co)		Niagara River - West Branch
17	Orchard Park Village	3671	Pipe Creek Reservoir
18	Springville Village	4169	Wells
19	Tonawanda City	18538	Niagara River - East Branch
20	Tonawanda Water District #1	91269	Niagara River
21	Wanakah Water Company	10750	Lake Erie
Non-Municipal Community			
22	Aurora Mobile Park	125	Wells
23	Bush Gardens Mobile Home Park	270	Wells
24	Circle B Trailer Court	50	Wells
25	Circle Court Mobile Park	125	Wells
26	Creekside Mobile Home Park	120	Wells
27	Donnelly's Mobile Home Court	99	Wells
28	Gowanda State Hospital	NA	Clear Lake
29	Hillside Estates	160	Wells
30	Hunters Creek Mobile Home Park	150	Wells
31	Knox Apartments	NA	Wells
32	Maple Grove Trailer Court	72	Wells
33	Hillgrove Mobile Park	100	Wells
34	Perkins Trailer Park	75	Wells
35	Quarry Hill Estates	400	Wells
36	Springville Mobile Park	114	Wells
37	Springwood Mobile Village	132	Wells
38	Taylor's Grove Trailer Park	39	Wells
39	Valley View Mobile Court	42	Wells
40	Villager Apartments	NA	Wells

NIAGARA COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
Municipal Community			
	Lockport City (See No 12, Erie Co)	25000	
1	Middleport Village	2000	Wells (Springs)
	Niagara County Water District (See No 13, Erie Co)	48	
2	Niagara Falls City (See also No 14 Erie Co)	77384	Niagara River - East Branch
	North Tonawanda City (See No 16 Erie Co)	36000	
Non-Municipal Community			
3	Country Estates Mobile Village	28	Wells

REF. 15

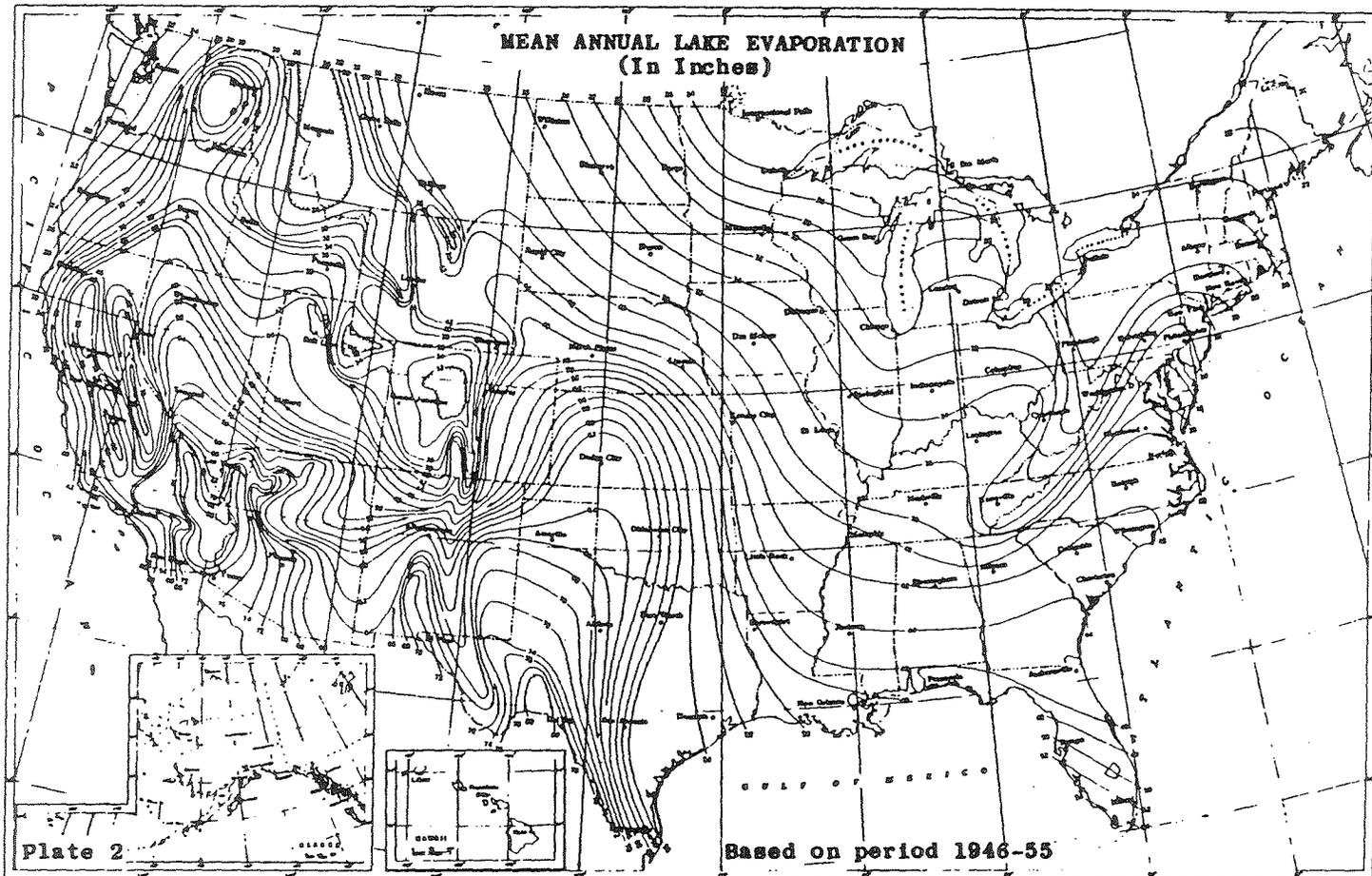
LOCATION OF COMMUNITY WATER SYSTEM SOURCES-1982

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF PUBLIC WATER SUPPLY PROTECTION

ERIE and NIAGARA COUNTIES



ADAPTED FROM THE FOUR-SHEET 1:250,000 SCALE NEW YORK STATE MAP © 1980 BY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION

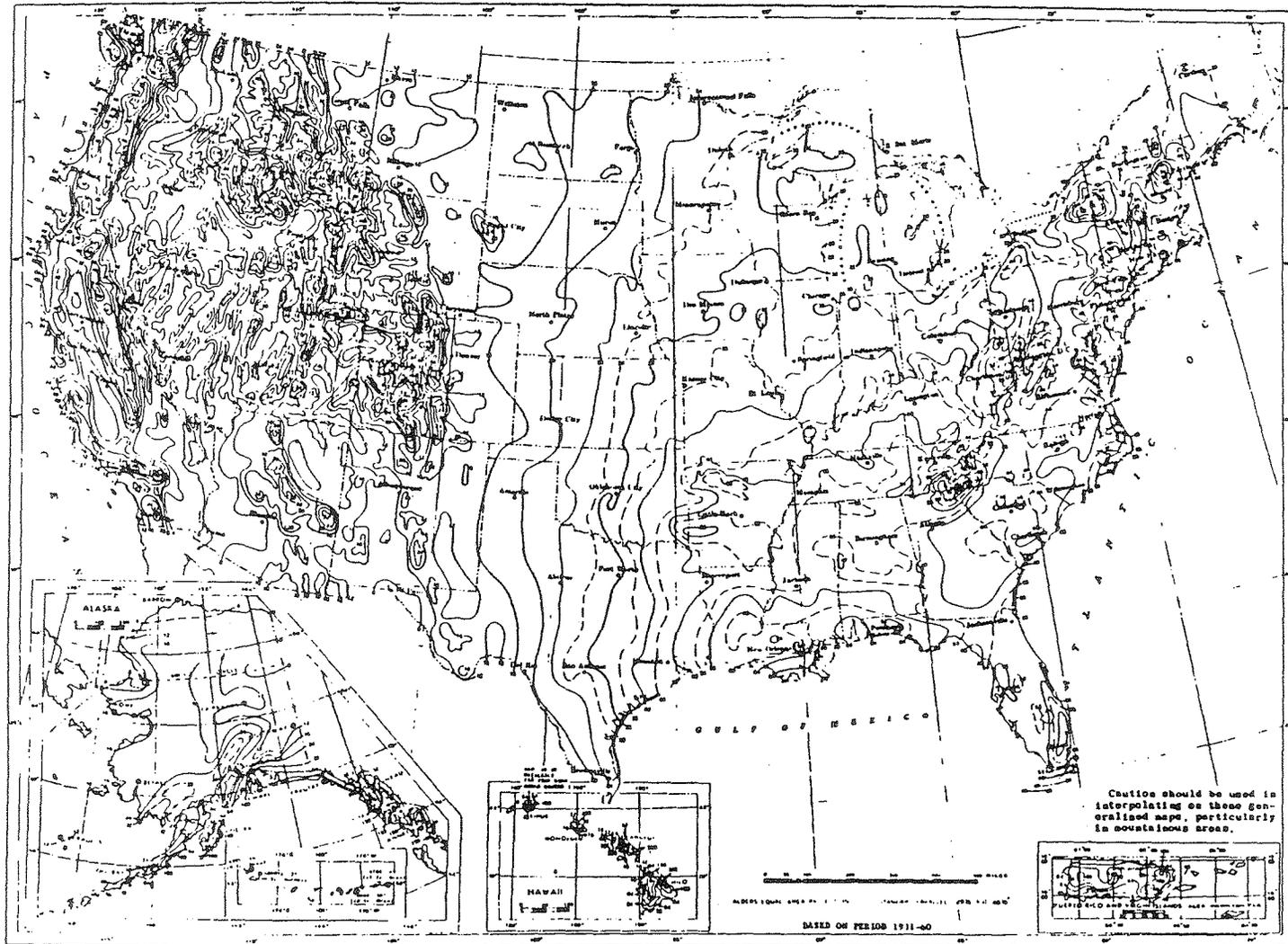


Source: Climatic Atlas of the United States, U.S. Department of Commerce, National Climatic Center, Ashville, N.C., 1979.

FIGURE 4
MEAN ANNUAL LAKE EVAPORATION
(IN INCHES)

13

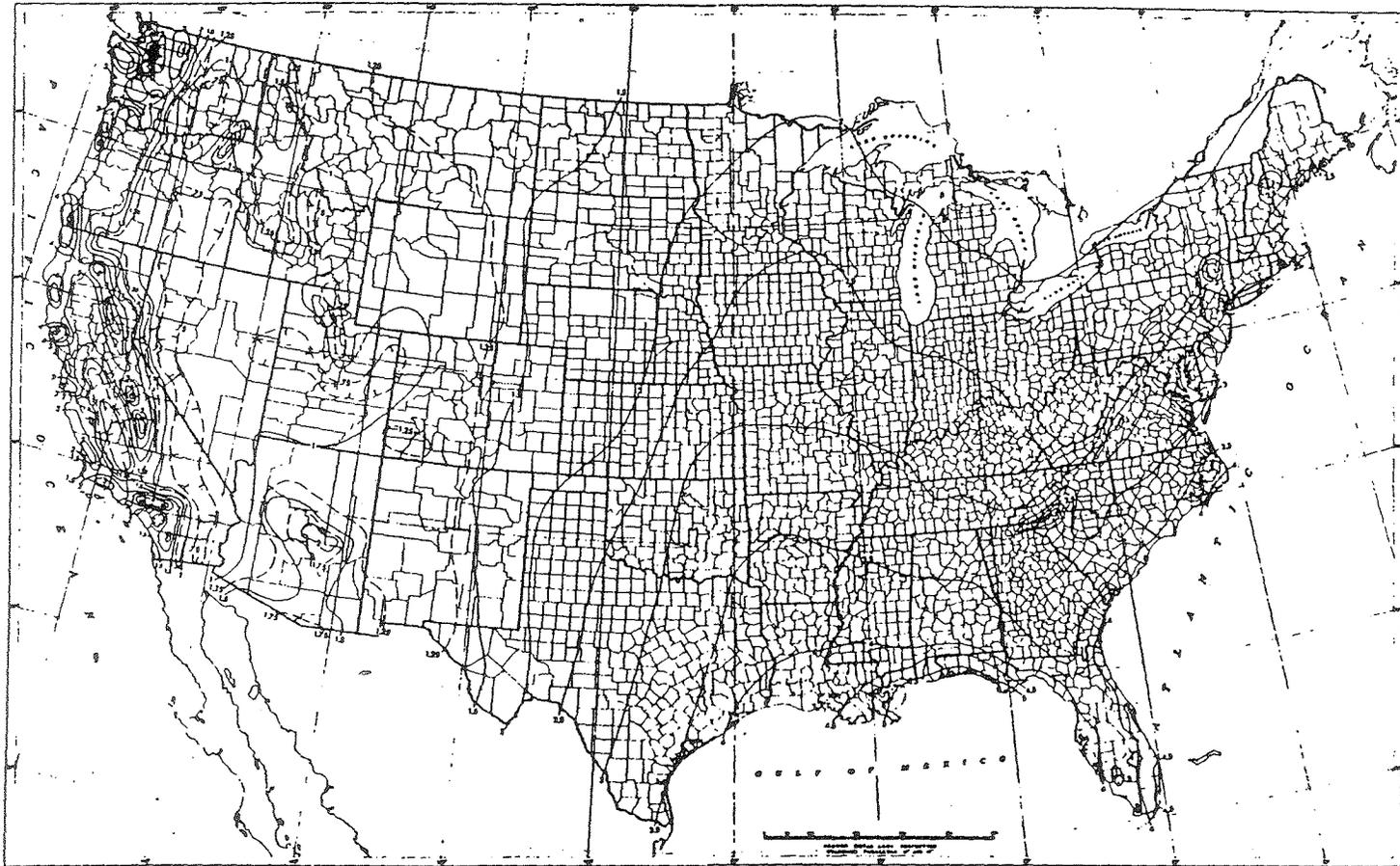
1717
 REF- 16



Source: Climatic Atlas of the United States, U.S. Department of Commerce, National Climatic Center, Asheville, N.C., 1979.

FIGURE 5
NORMAL ANNUAL TOTAL PRECIPITATION (INCHES)

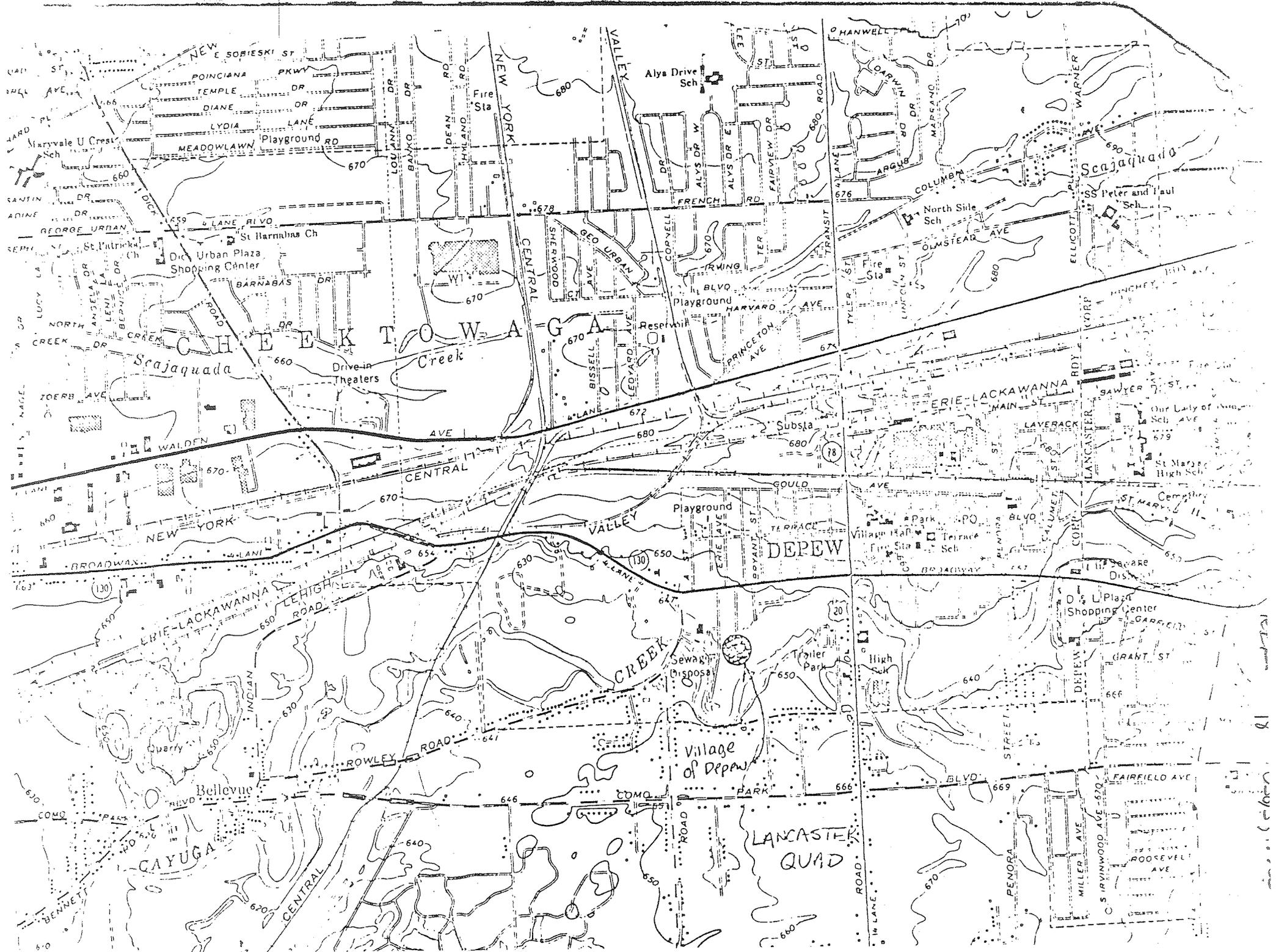
1777
16



Source: Rainfall Frequency Atlas of the United States, Technical Paper No. 40, U.S. Department of Commerce, U.S. Government Printing Office, Washington, D.C., 1963.

FIGURE 8
1-YEAR 24-HOUR RAINFALL
(INCHES)

REF. 17
USDOC, 1963



COUNTY OF ERIE
DEPARTMENT OF ENVIRONMENT & PLANNING
DIVISION OF ENVIRONMENTAL CONTROL

KEF
19

Voell, 4/85

MEMORANDUM

FROM Anthony T. Voell, Deputy Commissioner DATE April 29, 1985
TO Peter Buechi
SUBJECT Profile Addendum - Depew Landfill Site #915105

Attached is a copy of an inspection report for the above subject landfill.

ATV:jk
Attachment

cc: G. Devlin, EC Sewerage Management
Vincent LaPuma, V. Depew, Public Works



HAZARDOUS WASTE SITE PROFILES

ADDENDUM TO PROFILE REPORT FOR DEPEW LANDFILL SITE #915105

FIELD INSPECTION

The initial inspection of the site was conducted on February 13, 1985. Due to snow cover in some areas, it was decided to reinspect under more favorable weather conditions.

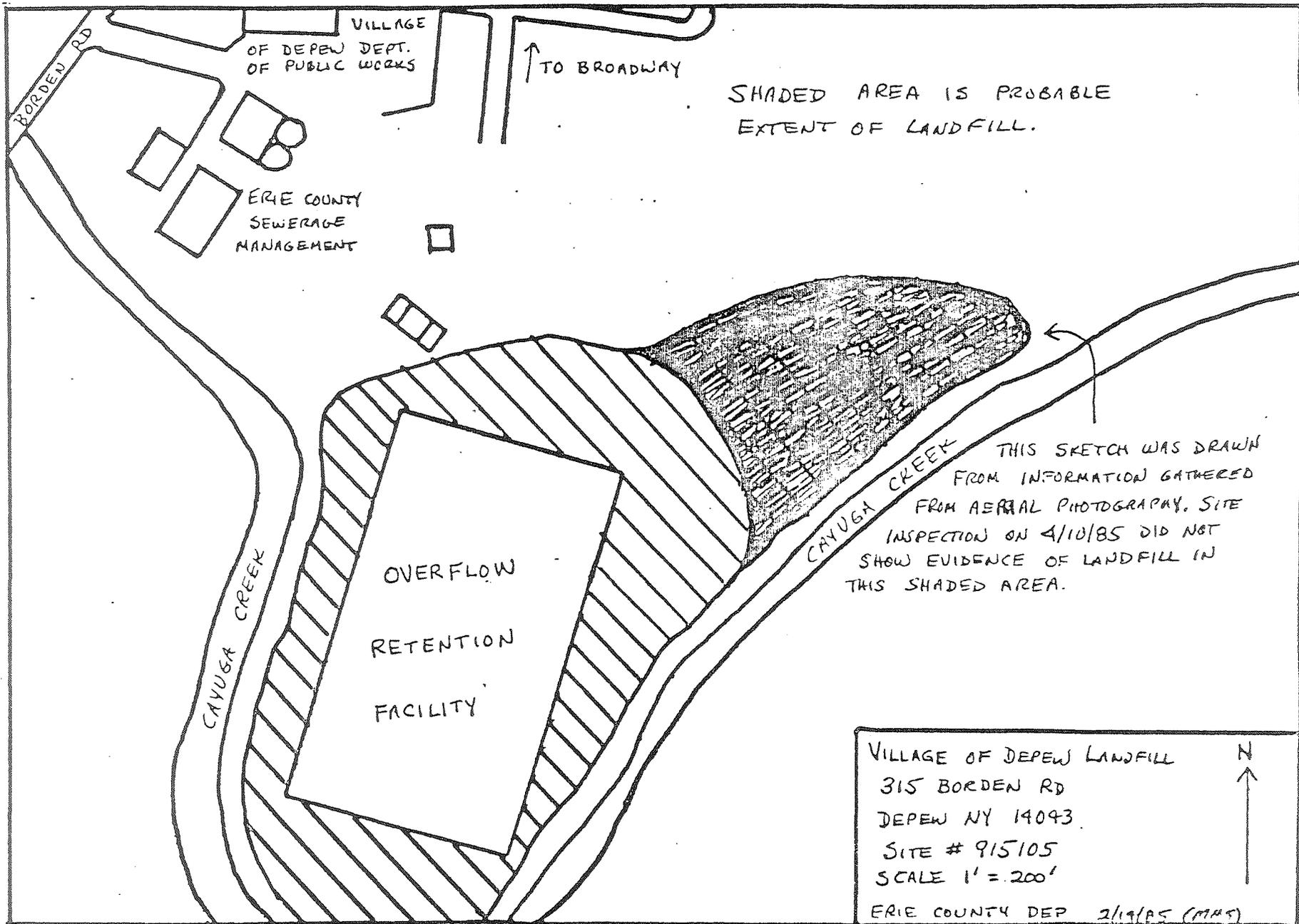
A reinspection was conducted on April 10, 1985.

The following observations were made:

- (1) There was no evidence of leachate or discoloration of soil along the creek bank.
- (2) There was no trash or refuse observed protruding through the cover material.
- (3) From this inspection, the actual landfill area appeared smaller than originally believed (see attached revised field sketch).
- (4) There was a small amount of construction debris on the site area, but this will be cleaned up when ORF Project is completed.

RECOMMENDATION

There is no visible evidence that any significant amount of material was landfilled at this site. A further check should be made with information obtained from companies in response to the New York State DEC 1984 Community Right-To-Know Survey. If this data supports the above finding then this site should be reclassified to a Class 5 site. It should be retained on the registry as a disposal site with no further action required.



RES
19



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Village of Depew Landfill		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 315 Borden Road			
03 CITY Depew	04 STATE NY	05 ZIP CODE 14043	06 COUNTY Erie		07 COUNTY CODE 029
09 COORDINATES LATITUDE		LONGITUDE			

10 DIRECTIONS TO SITE (Starting from nearest public road)
From Village of Depew, head east on Broadway (US 20) turn left onto Borden Road.

III. RESPONSIBLE PARTIES

01 OWNER (If known) Erie County		02 STREET (Business, making, residential) 95 Franklin St.			
03 CITY Buffalo	04 STATE NY	05 ZIP CODE 14200	06 TELEPHONE NUMBER (716) 846-6370		
07 OPERATOR (If known and different from owner)		08 STREET (Business, making, residential)			
09 CITY		10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER ()	

13 TYPE OF OWNERSHIP (Check one)

A. PRIVATE B. FEDERAL: _____ (Agency name) C. STATE D. COUNTY E. MUNICIPAL

F. OTHER: _____ (Specify) G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

A. RCRA 3001 DATE RECEIVED: ____/____/____ MONTH DAY YEAR B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ____/____/____ MONTH DAY YEAR C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION Several BY (Check all that apply)

YES DATE ____/____/____ MONTH DAY YEAR A. EPA B. EPA CONTRACTOR C. STATE D. OTHER CONTRACTOR

NO E. LOCAL HEALTH OFFICIAL F. OTHER: _____ (Specify)

CONTRACTOR NAME(S): Cathy J. Bosma (ES) and James & Moore - Larry Keefe

02 SITE STATUS (Check one) 03 YEARS OF OPERATION

A. ACTIVE B. INACTIVE C. UNKNOWN 1940 | 1962 UNKNOWN

BEGINNING YEAR ENDING YEAR

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Only municipal wastes disposed of in site. Constituents unknown, Municipal waste excavated in 1983. Phenols may have been present in the foundry sand that was used for cover material, not all wastes excavated.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Unknown

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)

A. HIGH (Inspection required promptly) B. MEDIUM (Inspection required) C. LOW (Inspect on time available basis) D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT Cathy J. Bosma	02 OF (Agency, Organization) Engineering - Science		03 TELEPHONE NUMBER 703-591-7575		
04 PERSON RESPONSIBLE FOR ASSESSMENT Cathy J. Bosma	05 AGENCY	06 ORGANIZATION E-3	07 TELEPHONE NUMBER ()	08 DATE 1, 8, 80 MONTH DAY YEAR	



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE <i>NY</i>	02 SITE NUMBER _____

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: _____

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

None tested

01 B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: _____

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

None tested

01 C. CONTAMINATION OF AIR
03 POPULATION POTENTIALLY AFFECTED: _____

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

ANU meter readings did not detect contaminants above 1ppm either upwind or downwind of site

01 D. FIRE/EXPLOSIVE CONDITIONS
03 POPULATION POTENTIALLY AFFECTED: _____

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

No fire/explosive potential exists.

01 E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: _____

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

low-fenced area

01 F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: _____ (Acres)

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

unknown

01 G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: _____

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

None - municipal supply

01 H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: _____

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

unknown

01 I. POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: _____

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

unknown



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE <i>NY</i>	02 SITE NUMBER _____

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

None noticed

01 K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION (include name(s) of species)

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

None noticed

01 L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

Unknown - unlikely

01 M. UNSTABLE CONTAINMENT OF WASTES
(Spills/runoff/standing liquids/leaking drums)
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

Majority of wastes excavated. No protruding waste or drums noted during site inspection

01 N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

unlikely

01 O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

Contamination would go to Cayuga Creek

01 P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION

02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

unlikely - none observed

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

ES and D&M Site Visit and Interview with Village of Depew and Kreibitz Associates, 1985
ELDEP Site Profile Report, 1985



**POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT**
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION	
01 STATE NY	02 SITE NUMBER

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Village of Depew Landfill		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 315 Borden Road			
03 CITY Depew	04 STATE NY	05 ZIP CODE 14043	06 COUNTY Erie	07 COUNTY CODE 029	08 CONG DIST
09 COORDINATES LATITUDE _____ LONGITUDE _____		10 TYPE OF OWNERSHIP (Check one) <input type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input checked="" type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER _____ <input type="checkbox"/> G. UNKNOWN			

III. INSPECTION INFORMATION

01 DATE OF INSPECTION 12/10/85 MONTH DAY YEAR	02 SITE STATUS <input type="checkbox"/> ACTIVE <input checked="" type="checkbox"/> INACTIVE	03 YEARS OF OPERATION 1940, 1962 BEGINNING YEAR ENDING YEAR	UNKNOWN
04 AGENCY PERFORMING INSPECTION (Check all that apply)			
<input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR _____ (Name of firm) <input type="checkbox"/> C. MUNICIPAL <input type="checkbox"/> D. MUNICIPAL CONTRACTOR _____ (Name of firm) <input checked="" type="checkbox"/> E. STATE <input type="checkbox"/> F. STATE CONTRACTOR _____ (Name of firm) <input checked="" type="checkbox"/> G. OTHER ES and DEM _____ (Specify)			

05 CHIEF INSPECTOR Nathy J. Bosma	06 TITLE Civil Engineer	07 ORGANIZATION Engineering-Science	08 TELEPHONE NO. (703) 591-7575
09 OTHER INSPECTORS Larry Keefe	10 TITLE Geologist	11 ORGANIZATION Pamco & Moore	12 TELEPHONE NO. (315) 638-2572
			()
			()
			()
			()

13 SITE REPRESENTATIVES INTERVIEWED Arthur Dominio	14 TITLE Mayor	15 ADDRESS Village of Depew 14043	16 TELEPHONE NO. (716) 681-1215
Vincent Li Puma	Superintendent	Village of Depew	(716) 681-1215
Robert H. Labenski	Engineer	Krehbiel Assoc.	(716) 693-9300
Gerald (Jerry) Devlin	Asst. Deputy Commissioner	Erie County	(716) 846-8887
			()
			()

17 ACCESS GAINED BY (Check one) <input checked="" type="checkbox"/> PERMISSION <input type="checkbox"/> WARRANT	18 TIME OF INSPECTION 10:30am	19 WEATHER CONDITIONS Rainy, Overcast
---	----------------------------------	--

IV. INFORMATION AVAILABLE FROM

01 CONTACT Nathy J. Bosma	02 OF (Agency/Organization) Engineering-Science (ES)		03 TELEPHONE NO. (703) 591-7575
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM Nathy J. Bosma	05 AGENCY	06 ORGANIZATION same	07 TELEPHONE NO. same
			08 DATE 1, 8, 86 MONTH DAY YEAR



POTENTIAL HAZARDOUS WASTE SITE
 SITE INSPECTION REPORT
 PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE NY 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 A. GROUNDWATER CONTAMINATION 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
 03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

No record of testing

01 B. SURFACE WATER CONTAMINATION 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
 03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

No record of testing

01 C. CONTAMINATION OF AIR 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
 03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

No record of testing. HNU readings taken in April 1986 did not detect certain radionuclides upwind or downwind of site.

01 D. FIRE/EXPLOSIVE CONDITIONS 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
 03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

No fire/explosive potential exists

01 E. DIRECT CONTACT 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
 03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

minimal - area is fenced (Vill. of Depew DPW)

01 F. CONTAMINATION OF SOIL 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
 03 AREA POTENTIALLY AFFECTED: _____ (Acres) 04 NARRATIVE DESCRIPTION

No record of testing

01 G. DRINKING WATER CONTAMINATION 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
 03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Unlikely, municipal water supply

01 H. WORKER EXPOSURE/INJURY 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
 03 WORKERS POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None known

01 I. POPULATION EXPOSURE/INJURY 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
 03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None known



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY

HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 J. DAMAGE TO FLORA 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

No apparent damage

01 K. DAMAGE TO FAUNA 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

No apparent damage

01 L. CONTAMINATION OF FOOD CHAIN 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

Unlikely

01 M. UNSTABLE CONTAINMENT OF WASTES 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
(Spills/Runoff/Standing liquids, Leaking drums)
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

01 N. DAMAGE TO OFFSITE PROPERTY 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

None known

01 O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

Unknown

01 P. ILLEGAL/UNAUTHORIZED DUMPING 02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION

Unlikely - area is inactive - fenced

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e. g., state files, sample analysis, reports)

*ES & DAW site visit 12/85 and Interviews
ELDER Site Profile Report, 1985*



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER
NY |

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED <i>(Check all that apply)</i>	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
<input type="checkbox"/> A. NPDES				
<input type="checkbox"/> B. UIC				
<input type="checkbox"/> C. AIR				
<input type="checkbox"/> D. RCRA				
<input type="checkbox"/> E. RCRA INTERIM STATUS				
<input type="checkbox"/> F. SPCC PLAN				
<input type="checkbox"/> G. STATE <i>(Specify)</i>				
<input type="checkbox"/> H. LOCAL <i>(Specify)</i>				
<input type="checkbox"/> I. OTHER <i>(Specify)</i>				
<input checked="" type="checkbox"/> NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL <i>(Check all that apply)</i>	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT <i>(Check all that apply)</i>	05 OTHER
<input type="checkbox"/> A. SURFACE IMPOUNDMENT <input type="checkbox"/> B. PILES <input type="checkbox"/> C. DRUMS, ABOVE GROUND <input type="checkbox"/> D. TANK, ABOVE GROUND <input type="checkbox"/> E. TANK, BELOW GROUND <input checked="" type="checkbox"/> F. LANDFILL <input type="checkbox"/> G. LANDFARM <input type="checkbox"/> H. OPEN DUMP <input type="checkbox"/> I. OTHER <i>(Specify)</i>			<input type="checkbox"/> A. INCENERATION <input type="checkbox"/> B. UNDERGROUND INJECTION <input type="checkbox"/> C. CHEMICAL/PHYSICAL <input type="checkbox"/> D. BIOLOGICAL <input type="checkbox"/> E. WASTE OIL PROCESSING <input type="checkbox"/> F. SOLVENT RECOVERY <input type="checkbox"/> G. OTHER RECYCLING/RECOVERY <input checked="" type="checkbox"/> H. OTHER <i>(Specify)</i> BFI site	<input type="checkbox"/> A. BUILDINGS ON SITE Storage Retention Facility 06 AREA OF SITE 5 (Acres)

07 COMMENTS

60,000 cu yds of ~~was~~ municipal wastes were excavated from the landfill during construction of storm retention overflow facility. No sampling of excavated wastes were taken. No known hazardous wastes have been disposed at site. Additional wastes are expected to remain buried on-site. Foundry sands containing phenols were used as cover material!

IV. CONTAINMENT

01 CONTAINMENT OF WASTES *(Check one)*
 A. ADEQUATE, SECURE B. MODERATE C. INADEQUATE, POOR D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

At time material landfilled, cover was inadequate.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: YES NO
 02 COMMENTS

VI. SOURCES OF INFORMATION *(Cite specific references, e.g. state files, sample analysis, reports)*

ES and D&M Site Visit 12-10-85 and Interviews
 Erie County / DEC site investigations, 1985.
 Dresser Interview



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE NY 02 SITE NUMBER

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY <i>(Check as applicable)</i>		02 STATUS			03 DISTANCE TO SITE	
	SURFACE	WELL	ENDANGERED	AFFECTED	MONITORED	
COMMUNITY	A. <input type="checkbox"/>	B. <input type="checkbox"/>	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>	A. _____ (mi)
NON-COMMUNITY	C. <input type="checkbox"/>	D. <input type="checkbox"/>	D. <input type="checkbox"/>	E. <input type="checkbox"/>	F. <input type="checkbox"/>	B. _____ (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY *(Check one)*

A. ONLY SOURCE FOR DRINKING
 B. DRINKING *(Other sources available)*
COMMERCIAL, INDUSTRIAL, IRRIGATION *(No other water sources available)*
 C. COMMERCIAL, INDUSTRIAL, IRRIGATION *(Limited other sources available)*
 D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER N/A

03 DISTANCE TO NEAREST DRINKING WATER WELL N/A (mi)

04 DEPTH TO GROUNDWATER <u>23</u> (ft)	05 DIRECTION OF GROUNDWATER FLOW <u>NW</u>	06 DEPTH TO AQUIFER OF CONCERN <u>3-17</u> (ft)	07 POTENTIAL YIELD OF AQUIFER _____ (gpd)	08 SOLE SOURCE AQUIFER <input type="checkbox"/> YES <input type="checkbox"/> NO
---	---	--	--	--

09 DESCRIPTION OF WELLS *(including usage, depth, and location relative to population and buildings)*

Temporary groundwater elevation monitoring wells installed during overflow Retention Facility - located on 4 corners of facility - pipes removed

10 RECHARGE AREA <input type="checkbox"/> YES <input type="checkbox"/> NO	COMMENTS	11 DISCHARGE AREA <input type="checkbox"/> YES <input type="checkbox"/> NO	COMMENTS
--	----------	---	----------

IV. SURFACE WATER

01 SURFACE WATER USE *(Check one)*

A. RESERVOIR, RECREATION DRINKING WATER SOURCE
 B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES
 C. COMMERCIAL, INDUSTRIAL
 D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
<u>Cayuga Creek</u>	<input type="checkbox"/>	<u>< 100</u> (mi)
_____	<input type="checkbox"/>	_____ (mi)
_____	<input type="checkbox"/>	_____ (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN			02 DISTANCE TO NEAREST POPULATION
ONE (1) MILE OF SITE A. <u>1090</u> NO. OF PERSONS	TWO (2) MILES OF SITE B. <u>37343</u> NO. OF PERSONS	THREE (3) MILES OF SITE C. <u>85767</u> NO. OF PERSONS	<u>< 1/4</u> (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE <u>9827</u>	04 DISTANCE TO NEAREST OFF-SITE BUILDING <u>< 1/4</u> (mi)
--	--

05 POPULATION WITHIN VICINITY OF SITE *(Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)*

Zero



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE NY 02 SITE NUMBER

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

A. $10^{-6} - 10^{-8}$ cm/sec B. $10^{-4} - 10^{-6}$ cm/sec C. $10^{-4} - 10^{-3}$ cm/sec D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

A. IMPERMEABLE (Less than 10^{-6} cm/sec) B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK

15 (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

_____ (ft)

05 SOIL pH

6.5

06 NET PRECIPITATION

5" (in)

07 ONE YEAR 24 HOUR RAINFALL

2.1 (in)

08 SLOPE

SITE SLOPE

2 %

DIRECTION OF SITE SLOPE

SSW

TERRAIN AVERAGE SLOPE

2 %

09 FLOOD POTENTIAL

SITE IS IN 100 YEAR FLOODPLAIN

10

SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE

A. 72 (mi)

OTHER

B. 0.8 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

_____ (mi)

ENDANGERED SPECIES: _____

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

A. _____ (mi)

RESIDENTIAL AREAS; NATIONAL/STATE PARKS,
FORESTS, OR WILDLIFE RESERVES

B. 1/2 (mi)

AGRICULTURAL LANDS
PRIME-AG LAND AG LAND

C. _____ (mi) D. _____ (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Site is located on an ~~oxbow~~ Bend on the north side of Cayuga Creek. Land is relatively flat sloping to the SSW. Areas to the immediate east and west are open fields. To the north and south are residential areas.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

ES and DEM Site Visit (1985)
Eric County DEP report (1985)
NYSDEC, M. M. MURPHY



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE NY 02 SITE NUMBER 1050

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER		None	
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNU	Air readings were taken upwind and downwind of the site. No volatile organics were detected above 1 ppm.

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> AERIAL	02 IN CUSTODY OF <u>Engineering-Science</u> <small>(Name of organization or individual)</small>
03 MAPS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	04 LOCATION OF MAPS <u>Site map of site was updated during site investigation.</u>

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

Boring Logs and Soils Report (C-36-390-03); Erie County, Overflow Retention Facility, Contract ECL. Also grading plan of site.

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Site Inspection - ES and DEM 12-10-85, and April 1986



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY

II. CURRENT OWNER(S)				PARENT COMPANY (if applicable)			
01 NAME Erie County		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 95 Franklin St.			04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE
05 CITY Buffalo		06 STATE NY	07 ZIP CODE 14202	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first)				IV. REALTY OWNER(S) (if applicable: list most recent first)			
01 NAME Village of Depew		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 85 Manitou at Gould			04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE
05 CITY Depew		06 STATE NY	07 ZIP CODE 14043	05 CITY		06 STATE	07 ZIP CODE
01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE
05 CITY		06 STATE	07 ZIP CODE	05 CITY		06 STATE	07 ZIP CODE
01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE
05 CITY		06 STATE	07 ZIP CODE	05 CITY		06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

ES and DEMA Site Investigation 12-10-85



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION
01 STATE: NY 02 SITE NUMBER: _____

II. CURRENT OPERATOR <i>(Provide if different from owner)</i>				OPERATOR'S PARENT COMPANY <i>(If applicable)</i>			
01 NAME Erie County		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i> 95 Franklin St.		04 SIC CODE		12 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>		13 SIC CODE	
05 CITY Buffalo		08 STATE NY	07 ZIP CODE 14202	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION 1983 - 87 Date		09 NAME OF OWNER - Asst. Deputy Commissioner Gerald Devlin					

III. PREVIOUS OPERATOR(S) <i>(List most recent first; provide only if different from owner)</i>				PREVIOUS OPERATORS' PARENT COMPANIES <i>(If applicable)</i>			
01 NAME Village of Depew		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i> 85 Manitow at Gould		04 SIC CODE		12 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>		13 SIC CODE	
05 CITY Depew		08 STATE NY	07 ZIP CODE 14043	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION ~1940 - 1983		09 NAME OF OWNER DURING THIS PERIOD Mayor Arthur Domingo					

01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>		04 SIC CODE		12 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>		13 SIC CODE	
05 CITY		08 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>		04 SIC CODE		12 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>		13 SIC CODE	
05 CITY		08 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					

IV. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

ES and D&M Site Visit 12-10-85 and Interviews



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY

II. ON-SITE GENERATOR

01 NAME None	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME Village of Depew	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY Residence of Depew	06 STATE NY	07 ZIP CODE	08 STATE 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	08 STATE 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME Trash pickup about 3 times wk	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.) Village of Depew	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	08 STATE 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	08 STATE 07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

ES and Dam Site Visit 12-10-85



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER
NY |

II. PAST RESPONSE ACTIVITIES

01 A. WATER SUPPLY CLOSED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

Not applicable

01 B. TEMPORARY WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 C. PERMANENT WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 D. SPILLED MATERIAL REMOVED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 E. CONTAMINATED SOIL REMOVED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 F. WASTE REPACKAGED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 G. WASTE DISPOSED ELSEWHERE
04 DESCRIPTION

02 DATE 1983

03 AGENCY _____

60,000 cubic yards of waste excavated and sent to BFI landfill in Tonawanda.

01 H. ON SITE BURIAL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 I. IN SITU CHEMICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 J. IN SITU BIOLOGICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 K. IN SITU PHYSICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 L. ENCAPSULATION
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 M. EMERGENCY WASTE TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 N. CUTOFF WALLS
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 O. EMERGENCY DIKING/SURFACE WATER DIVERSION
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 P. CUTOFF TRENCHES/SUMP
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 Q. SUBSURFACE CUTOFF WALL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	

II PAST RESPONSE ACTIVITIES (Continued)

01 <input type="checkbox"/> R. BARRIER WALLS CONSTRUCTED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> S. CAPPING/COVERING 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> T. BULK TANKAGE REPAIRED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> U. GROUT CURTAIN CONSTRUCTED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> V. BOTTOM SEALED 04 DESCRIPTION NOTE: Overflow Retention Facility built after wastes were excavated. The facility is concrete bottom but more wastes are expected to be disposed of on site.	02 DATE <u>1983</u>	03 AGENCY _____
01 <input type="checkbox"/> W. GAS CONTROL 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> X. FIRE CONTROL 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> Y. LEACHATE TREATMENT 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> Z. AREA EVACUATED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> 1. ACCESS TO SITE RESTRICTED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> 2. POPULATION RELOCATED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> 3. OTHER REMEDIAL ACTIVITIES 04 DESCRIPTION	02 DATE _____	03 AGENCY _____

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

ELDEP Site Profile Report



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

NY

6

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION YES NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

In the past, 1950s, there have been complaints of odors and visible trash as well as flies and rats. Currently no wastes protrude from the site and there are no complaints

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Letter from E. Sticht to NYS Dept of Health and Sanitation, 1950
EADDP Site Profile Report, 1985

SECTION VI
ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATIONS

ASSESSMENT OF DATA ADEQUACY

A summary assessment of the adequacy of existing data for completion of the HRS score is presented in Table VI-1. Insufficient information is presently available to complete an HRS score for this site.

PHASE II WORK PLAN

Objectives

The objectives of the Phase II activities are:

- o To collect additional field data necessary to identify the occurrence and extent of contamination and to determine if any imminent health hazard exists.
- o To perform a conceptual evaluation of remedial alternatives and estimate budgetary costs for the most likely alternative.
- o To prepare a site investigation report including final HRS score.

The additional field data required to complete this investigation are described as follows:

Geophysical Survey - A geophysical study consisting of electrical resistivity and magnetometer surveys is recommended. The electrical resistivity survey will be performed at various locations within and beyond the perimeter of the site to investigate site

stratigraphy, delineate significant discontinuities and assess the presence and location of contaminant plumes. A magnetometer survey will be conducted as necessary on a grid system to aid in delineating the limits of the contaminated area.

Groundwater - A groundwater monitoring system consisting of 3 wells is recommended. Borings will be drilled to a maximum depth of 30 feet; soil samples will be taken every 5 feet or more frequently if a change in soil lithology is encountered. The wells will be placed in the aquifer of concern and constructed of 2" PVC pipe. The groundwater samples will be analyzed for phenols and HSL metals.

Surface Water - A surface water monitoring system consisting of 2 monitoring stations is recommended. One station (S-1) will be upgradient of the site, and the second station (S-2) will be downgradient. The surface water samples will be analyzed for phenols and HSL metals.

Waste - A waste sampling consisting of 6 samples collected from two locations where landfilled materials remain on-site and one background location is recommended. Composite samples of the soil collected at 6-12 inches and 18-24 inches will be made. Samples will be analyzed for phenols and HSL metals.

Air - An air monitoring survey with an HNu meter is recommended to test the air quality above the site.

TASK DESCRIPTION

The proposed Phase II tasks are described in Table VI-2. The proposed sampling locations are presented in Figure VI-1.

COST ESTIMATE

The estimated man-hours required for the Phase II project are presented in Table VI-3 and the estimated project costs are presented by task in Table VI-4.

HEALTH AND SAFETY PLAN

The Health and Safety Plan will be submitted as a separate document.

QUALITY ASSURANCE PLAN

The Quality Assurance Plan will be submitted as a separate document.

TABLE VI-1
ASSESSMENT OF DATA ADEQUACY

HRS Data Requirement	Comments on Data
Observed Release	
Groundwater	Inadequate data to score an observed release
Surface Water	Inadequate data to score an observed release
Air	Adequate data for HRS score
Route Characteristics	
Groundwater	Adequate data for HRS score
Surface Water	Adequate data for HRS score
Air	Adequate data for HRS score
Containment	Adequate data for HRS score
Waste Characteristics	Inadequate data for HRS score
Targets	Adequate data for HRS score
Observed Incident	Adequate data for HRS score
Accessibility	Adequate data for HRS score

TABLE VI-2

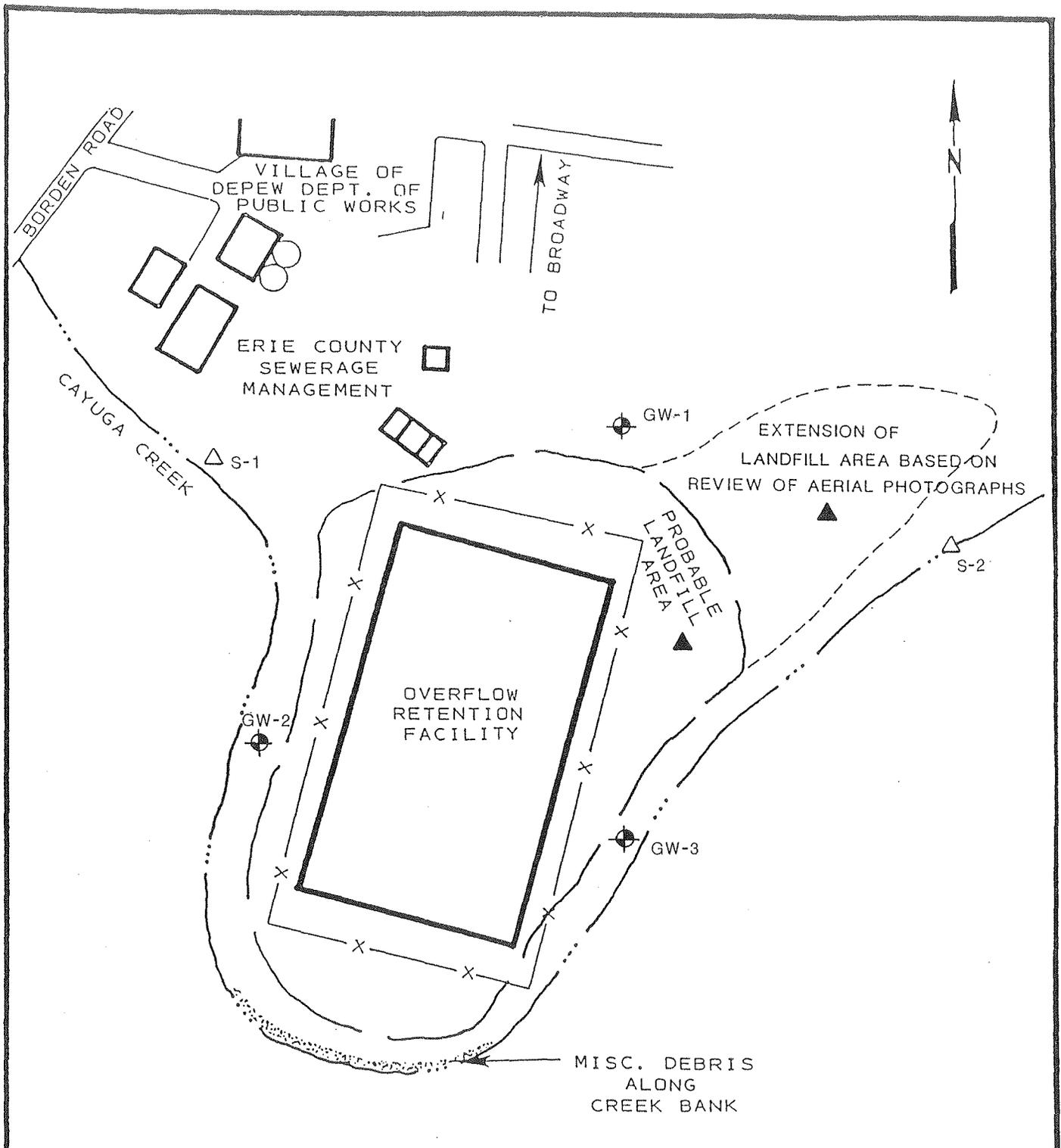
PHASE II WORK PLAN - TASK DESCRIPTION

Task	Description of Task
II-A Update Work Plan	Review the information in the Phase I report, conduct a site visit, and revise the Phase II work plan.
II-B Conduct Geophysical Studies	Conduct resistivity and magnetometer surveys.
II-C Conduct Boring/Install Monitoring Wells	Install 1 upgradient and 2 downgradient wells. The wells are to be located at a depth of approximately 30 feet and constructed of 2" PVC pipe.
II-D Construct Test Pits/Auger Holes	Install 3 auger holes, one background location and two where wastes remain landfilled on-site.
II-E Perform Sampling & Analysis	
Soil samples from borings	Soil samples collected at 5 foot intervals during drilling and at changes in subsurface lithologies. Perform one grain size analysis and permeability test per subsurface lithology change.
Soil samples from surface soils	No further studies necessary.
Soil samples from auger holes/test pits	No further studies necessary.
Sediment samples from surface water	No further studies necessary.
Groundwater samples	3 groundwater samples are to be collected and analyzed for phenols and HSL metals.

TABLE VI-2, Continued

PHASE II WORK PLAN - TASK DESCRIPTION

Task	Description of Task
Surface water samples	2 surface water samples are to be collected and analyzed for phenols and HSL metals.
Air samples	Using the HNU, determine the presence of organics.
Waste samples from auger holes	2 composite soil samples are to be collected from each auger hole and analyzed for phenols and HSL metals.
II-F Calculate Final HRS	Based on the field data collected in Tasks II-B - II-E, complete the HRS form.
II-G Conduct Site Assessment	Prepare final report containing Phase I report, additional field data, final HRS and HRS documentation records, and site assessments. The site assessment will consist of a conceptual evaluation of alternatives and a preliminary cost estimate of the most probable alternative.
II-H Project Management	Project coordination, administration and reporting.



NOT TO SCALE

- ▲ PROPOSED ON-SITE WASTE SAMPLE LOCATIONS
 - △ PROPOSED SURFACE WATER SAMPLE
 - ⊗ PROPOSED GROUNDWATER MONITORING WELL
- THE OFF-SITE BACKGROUND SAMPLE SHALL BE LOCATED IN AN AREA WHERE NO WASTE DISPOSAL HAS OCCURRED.

ENGINEERING-SCIENCE, INC. IN ASSOCIATION WITH DAMES & MOORE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PHASE I REPORT
PLOT PLAN VILLAGE OF DEPEW
FIGURE VI-1

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 PHASE II INVESTIGATION
 COST ESTIMATE

SITE ID #: 915105
 SITE NAME: VILLAGE OF DEFEW
 CONSULTANT: ENGINEERING SCIENCE

TABLE VI-3

TASK DESCRIPTION	ESTIMATED HOURS OF DIRECT TECHNICAL LABOR (DTL)										TOTAL	
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	HOURS	COST
II-A UPDATE WORKPLAN	4	24	4	12	4	64	32	40	32	52	268	3757.20
II-B CONDUCT GEOPHYSICAL STUDIES	2	4				80		160	10	10	266	3477.60
II-C CONDUCT BORING/INSTALL MONITORING WELLS	2	4				48		8	10	12	84	1187.60
II-D CONSTRUCT TEST PITS/ AUGER HOLES	2	4				15		15			36	574.10
II-E SAMPLING AND ANALYSIS											0	0.00
Soil samples from borings						8		8			16	216.80
Soil samples from surface soils											0	0.00
Soil samples from auger holes/test pits											0	0.00
Sediment samples from surface water											0	0.00
Groundwater samples		2				24		24			50	700.80
Surface water samples		2				16		16			34	484.00
Air samples											0	0.00
Waste samples		2				8		8			18	267.20
II-F CALCULATE FINAL HRS SCORE	8	20	4	2	8	55	48	20	8	8	181	2889.10
II-G CONDUCT SITE ASSESSMENT	2	42	4		8	74	40	10	60	100	340	4554.60
II-H PROJECT MANAGEMENT	4	32	4		16					48	104	1712.80
TOTAL HOURS	24	136	16	14	36	392	120	309	120	230		
HOURLY RATE \$	33.40	25.20	22.00	19.70	17.00	15.10	13.30	12.00	9.60	8.60		
DIRECT LABOR COSTS \$	801.60	3427.20	352.00	275.80	612.00	5919.20	1596.00	3708.00	1152.00	1978.00		

2/7/86

TOTAL DTL COSTS	19821.80
INDIRECT LABOR COSTS	23389.72
TOTAL LABOR COSTS	43211.52
PROFIT (15%)	6481.73
TOTAL PRICE	49693.25

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 PHASE II INVESTIGATION
 COST ESTIMATE

SITE ID #: 915105
 SITE NAME: VILLAGE OF DEPEW
 CONSULTANT: ENGINEERING SCIENCE

TABLE VI-4

TASK DESCRIPTION	DIRECT LABOR HOURS	LABOR COST (\$)	SUBCONTR. COSTS \$	SUPP. & EQUIP. \$	MISC. \$	TRAVEL & PER DIEM \$	TOTALS \$
II-A UPDATE WORKPLAN	268	3757		360	210	350	4677.00
II-B CONDUCT GEOPHYSICAL STUDIES	266	3478		1500	50	1570	6598.00
II-C CONDUCT BORING/INSTALL MONITORING WELLS	84	1188	13250	945	75	680	16138.00
II-D CONSTRUCT TEST FITS/ AUGER HOLES	36	574		420	80	300	1374.00
II-E SAMPLING AND ANALYSIS			6225	540	50	850	7665.00
Soil samples from borings	16	217					217.00
Soil samples from surface soils							0.00
Soil samples from test pits/ auger holes							0.00
Sediment samples from surface water							0.00
Groundwater samples	50	701					701.00
Surface water samples	34	484					484.00
Air samples							0.00
Waste samples	18	2889					2889.00
II-F CALCULATE FINAL HRS SCORE	170	2695		50	75		2820.00
II-G CONDUCT SITE ASSESSMENT	334	4450		750	1000	165	6365.00
II-H PROJECT MANAGEMENT	102	1662		400	150		2212.00
SUBTOTAL	1378	22095.00	19475.00	4965.00	1690.00	3915.00	
INDIRECT LABOR (118% DTL)		26072.10					
PROFIT (%)		15	5	5	5	0	
PROFIT (\$)		7225.07	973.75	248.25	84.50		
TOTAL COSTS (\$)		55392.17	20448.75	5213.25	1774.50	3915.00	86743.67

APPENDIX A

Sources Contacted Documentation

References

SOURCES CONTACTED DOCUMENTATION

SOURCES CONTACTED SUMMARY SHEET
VILLAGE OF DEPEW LANDFILL

Person Contacted/ Location	Telephone #	Date	Information Collected
Glenn Hardcastle USEPA Headquarters, Superfund Office 401 M Street, SW Washington, DC	202-382-5617	12/19/85	Reviewed list of sites to determine if additional information was available.
John Anderson USEPA-Region II EPA Information 345 3rd St., Suite 530 Niagara Falls, NY 14305	716-285-8842	1/6/86	General information from site files.
Charley Hudson NYSDOH Empire State Plaza Corning Tower Albany, NY 12237	518-474-2121	12/30/85	Draft Reports.
Kevin Walters NYSDEC-Div. of Environmental Enforcement 50 Wolf Road Albany, NY 12233	518-457-4346	11/20/85	Reviewed list of sites to determine legal actions taken.
Walt Demick NYSDEC-Div. of Solid & Haz. Waste 50 Wolf Road Albany, NY 12233	518-457-0639	11/19/85	General information from site files.
Bob Hannaford NYSDEC-Div. of Water SPDES Files 50 Wolf Road Albany, NY 12233	518-457-6716	11/20/85	Reviewed SPDES files for permit numbers and conditions.
Val Washington NYS - Dept. of Law, Attorney General's Office Empire State Plaza Albany, NY 12233	518-473-3105	12/16/85	Reviewed list of sites to determine if legal action has occurred in the past, is in progress, and/or is scheduled in the near future.

SOURCES CONTACTED SUMMARY SHEET

Person Contacted/ Location	Telephone #	Date	Information Collected
Jeff T. Lacey Peter Burke Glenn Bailey NYS - Div. of Environmental Enforcement 600 Delaware Ave. Buffalo, NY 14202	716-847-4582	12/27/85 1/7/86	Reviewed list of sites to determine legal actions taken.
Peter Buechi Ahmad Tayyebi Bob Mitrey Larry Clare NYSDEC - Region 9 Div. of Solid & Haz. Waste 600 Delaware Ave. Buffalo, NY 14202	716-847-4585	11/14/85	Collected information from site files.
Lou Violanti NYS - Regional Dept. of Health 585 Delaware Ave. Buffalo, NY 14202	716-847-4500	11/15/85	Sent site information to Peter Buechi.
Henry Sondonato Robert Armbrust Dick Dybowski Larry Stiller Jackie DiPronio NYSDEC - Region 9 Division of Air 600 Delaware Ave. Buffalo, NY 14202	716-847-4565	11/15/85	Air emissions permits for sites.
Mike Wilkenson Jim Sneider NYSDEC - Region 9 Div. of Fish & Wildlife 600 Delaware Ave. Buffalo, NY 14202	716-847-4600	11/14/85	Endangered species informa- tion.
Mike McMurray NYSDEC - Region 9 600 Delaware Ave. Buffalo, NY 14202	716-847-4551	1/8/86	Wetlands and flood zone information.

SOURCES CONTACTED SUMMARY SHEET

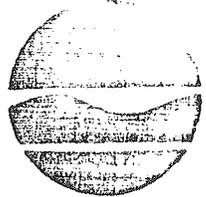
Person Contacted/ Location	Telephone #	Date	Information Collected
Marion Pfohl Spencer Schofield Erie and Niagara County Regional Planning Board 3103 Sheraton Dr. Amherst, NY 14226	716-837-2035	12/20/85	Census data, general site information.
Tony Voell Don Campbell Erie County - Division of Environmental Control 95 Franklin St. Buffalo, NY	716-846-6271	11/14/85	Collected information from Erie County site files.
Ron Koczaja Erie County Health Department 95 Franklin St. Buffalo, NY	716-846-7677	11/25/85	General information.
Mayor A. Domino Vincent LiPuma Village of Depew 85 Manitou at Gould Depew, NY 14043	716-681-1215	12/10/85	Site interview - ownership, waste disposal practices, etc.
Robert H. Labenski Krehbiel Associates 1870 Niagara Falls Blvd. Tonawanda, NY 14150	716-693-9300	12/10/85	Boring log and Soils Report.
Gerald Devlin ECDEP, Assistant Deputy 95 Franklin Street Buffalo, NY 14202	716-846-8387	12/10/85	Site interview - overflow retention facility information.

GENERAL REFERENCES*

- 21) Barolo, D.M., NYSDEC, Memorandum concerning Ambient Water Quality Standards and Guidance Values, 7/24/85.
- 22) Freeze, R.A. and J.A. Cherry, Groundwater, Prentice-Hall, Inc., 1979.
- 23) Johnson, R.H., Ground Water in the Niagara Falls Area, New York, U.S. Geological Survey, 1964.
- 24) LaSala, A.M., Ground Water Resources of the Erie-Niagara Basin, New York, USDOI, Geological Survey, 1968.
- 25) NYS Museum and Science Service Bedrock Geology Map and Quaternary Map, 1970.
- 26) Stricht, E.M., Letter to NYS, Department of Health and Sanitation, 11/14/50.

*Does not include "HRS References" which are provided directly after the HRS Documentation Records in Section V.

Barolo, 7/85



REF 2

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-0001

Henry G. Williams
Commissioner

July 24, 1985

MEMORANDUM

TO: Bureau Directors, Regional Water Engineers, Section Chiefs

SUBJECT: Division of Water Technical and Operational Guidance Series
(85-W-38)

Ambient Water Quality Standards and Guidance Values
(Originator: John Zambrano)

I. Purpose

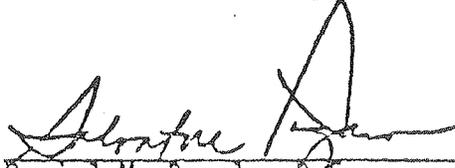
The purpose of this document is to provide a compilation of water quality standards and guidance values for toxic and non-conventional pollutants to be used in the Department's regulatory programs, including the SPDES permit program.

II. Discussion

This substantial revision of TOGS 85-W-38 is the result of the promulgation of amendments to 6 NYCRR Part 701-702, effective on August 2, 1985, governing the development and use of surface water quality standards and guidance values. This revision uses a new format in the tabulation and does not include the methodologies for the development of standards and guidance values. The user is referred to the regulations for a description of the methodologies.

III. Guidance

The Quality Evaluation Section will use the attached list in developing SPDES permit water quality-based effluent limits. The Criteria and Standards Section will maintain and revise the list on a regular basis.

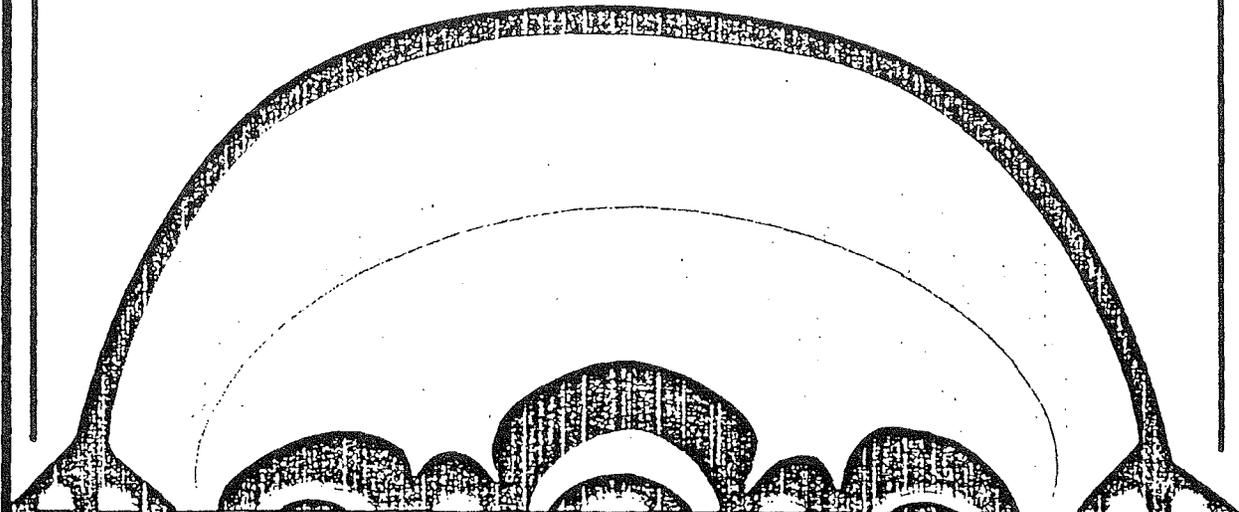

for Daniel M. Barolo, P.E.
Director
Division of Water

Attachments

cc: Dr. Banks
Mr. Pagano
Mr. Mt. Pleasant
Regional Engineers for Environmental Quality
Ms. Chrimes

REF
21

GROUNDWATER



R. Allan Freeze / John A. Cherry

REF 21
Freeze + Cherry, 1979.

Table 2.2 Range of Values of Hydraulic Conductivity and Permeability

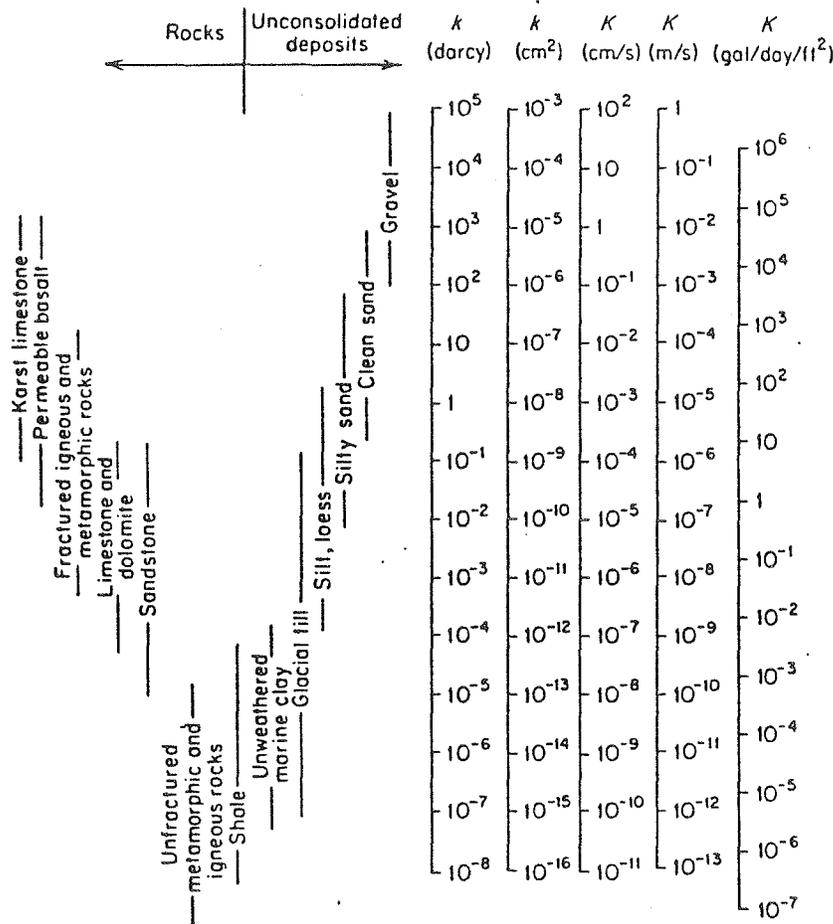


Table 2.3 Conversion Factors for Permeability and Hydraulic Conductivity Units

	Permeability, k^a			Hydraulic conductivity, K		
	cm ²	ft ²	darcy	m/s	ft/s	U.S. gal/day/ft ²
cm ²	1	1.08×10^{-3}	1.01×10^8	9.80×10^2	3.22×10^3	1.85×10^9
ft ²	9.29×10^2	1	9.42×10^{10}	9.11×10^5	2.99×10^6	1.71×10^{12}
darcy	9.87×10^{-9}	1.06×10^{-11}	1	9.66×10^{-6}	3.17×10^{-5}	1.82×10^1
m/s	1.02×10^{-3}	1.10×10^{-6}	1.04×10^5	1	3.28	2.12×10^6
ft/s	3.11×10^{-4}	3.35×10^{-7}	3.15×10^4	3.05×10^{-1}	1	6.46×10^5
U.S. gal/day/ft ²	5.42×10^{-10}	5.83×10^{-13}	5.49×10^{-2}	4.72×10^{-7}	1.55×10^{-6}	1

^aTo obtain k in ft², multiply k in cm² by 1.08×10^{-3} .

JOHNSTON, 1964

REF
22

GROUND WATER IN THE
NIAGARA FALLS AREA, NEW YORK

With Emphasis on the
Water-Bearing Characteristics of the Bedrock

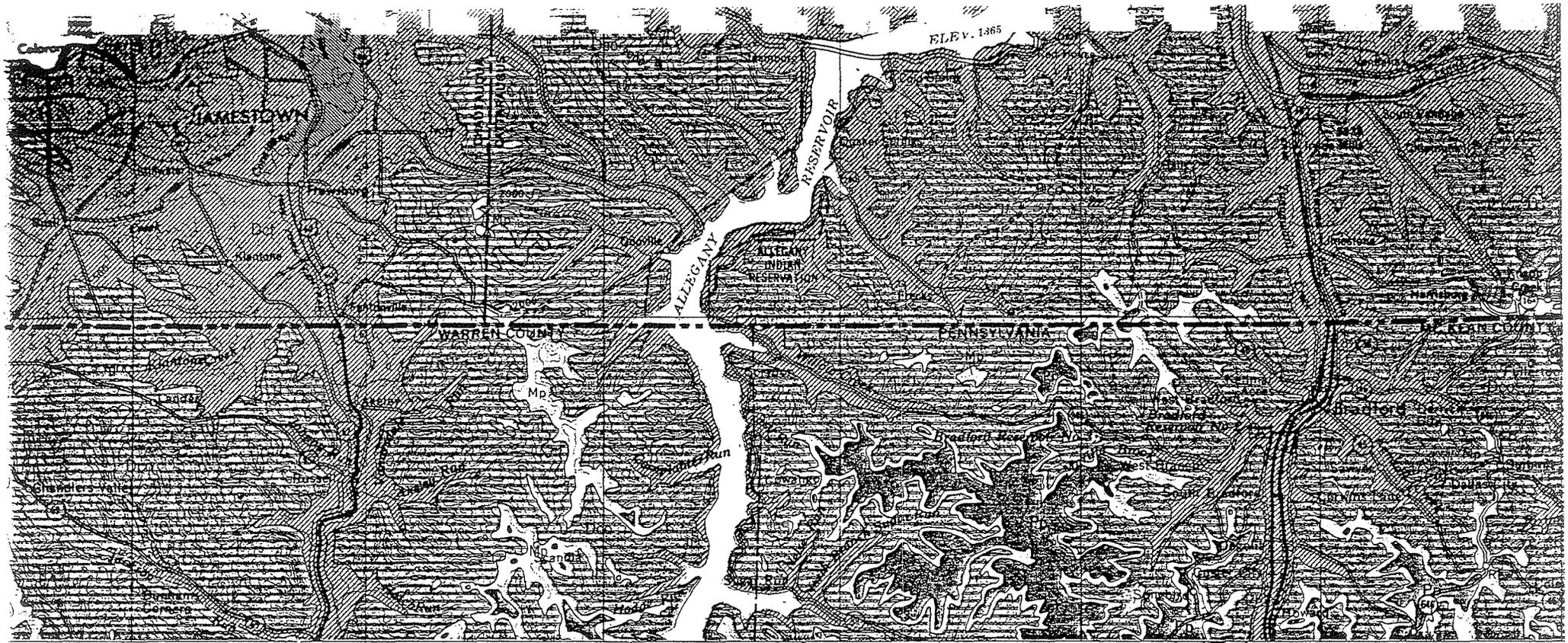
BY
RICHARD H. JOHNSTON
GEOLOGIST
U.S. GEOLOGICAL SURVEY

STATE OF NEW YORK
CONSERVATION DEPARTMENT
WATER RESOURCES COMMISSION



BULLETIN GW-53
1964

46, 732

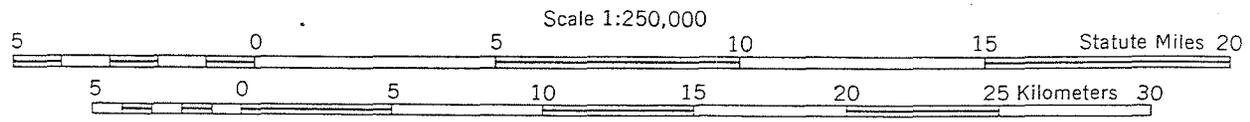


15' 79°00' 45' 30'

GEOLOGIC MAP OF NEW YORK

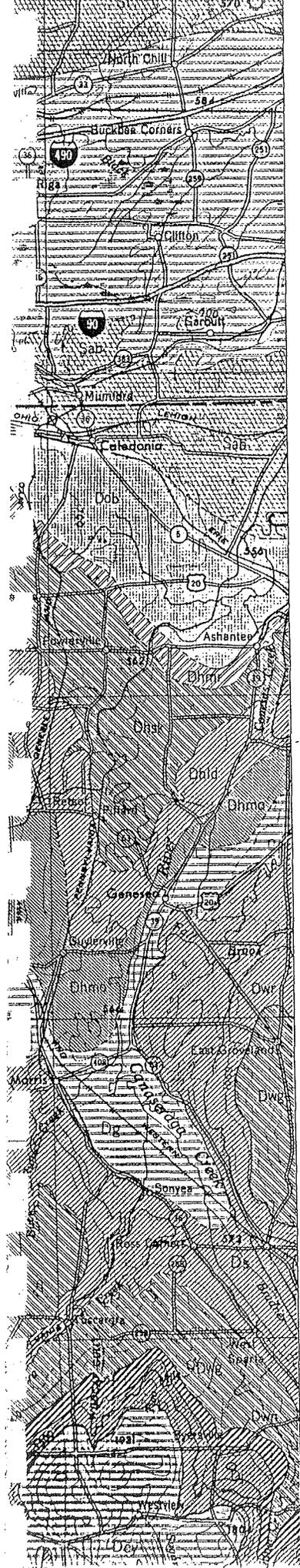
1970

Niagara Sheet



CONTOUR INTERVAL 100 FEET

REF
84
1/15/70



43°00'

45'

Upper Devonian

PALEOZOIC

Middle Devonian

Lower Devonian

er Silurian

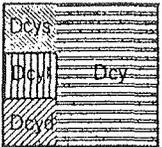


Dcl

IN WEST: LITTLE AND DECLERQUE FORMATIONS—shale, siltstone.
In east: Germania Formation—shale, sandstone; Whitesville Formation—shale, sandstone; Hinsdale Sandstone; Wellsville Formation—shale, sandstone; Cuba Sandstone.

CANADAWAY GROUP
700-1200 ft. (210-370 m.)

REF
24



Dcys Northeast Shale; Shumla Siltstone.
Dcyl Westfield Shale; Laona Siltstone.
Dcyd Gowanda, South Wales, and Dunkirk Shales.
Dcy Machias Formation—shale, siltstone; Rushford Sandstone; Caneadea, Canisteo, and Hume Shales; Canaseraga Sandstone; South Wales and Dunkirk Shales.

JAVA GROUP
100-200 ft. (30-60 m.)



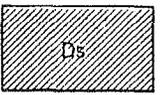
Dj Hanover Shale; Wiscoy Formation—sandstone, shale; Pipe Creek Shale.

WEST FALLS GROUP
400-950 ft. (120-290 m.)



Dwf Angola and Rhinestreet Shales.
Dwn Nunda Formation—sandstone, shale.
Dwg West Hill and Gardeau Formations—shale, siltstone; Roricks Glen Shale; upper Beers Hill Shale; Grimes Siltstone.
Dwr lower Beers Hill Shale; Dunn Hill, Millport, and Moreland Shales.

SONYEA GROUP
50-200 ft. (15-60 m.)



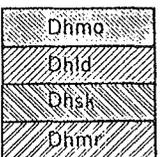
Ds Cashaqua and Middlesex Shales.

GENESEE GROUP
10-150 ft. (3-45 m.)



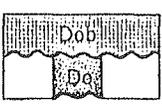
Dg West River Shale; Genundewa Limestone; Penn Yan and Genesee Shales; North Evans Limestone.

HAMILTON GROUP
200-500 ft. (60-150 m.)



Dhmo Moscow Formation—Windom and Kashong Shales, Menteth Limestone Members.
Dhld Ludlowville Formation—Deep Run Shale, Tichenor Limestone, Wanakah and Ledyard Shales, Centerfield Limestone Members.
Dhsh Skaneateles Formation—Levanna Shale, Stafford Limestone Members.
Dhmr Marcellus Formation—Oatka Creek Shale Member.

ONONDAGA AND BOIS BLANC LIMESTONES
150 ft. (45 m.)



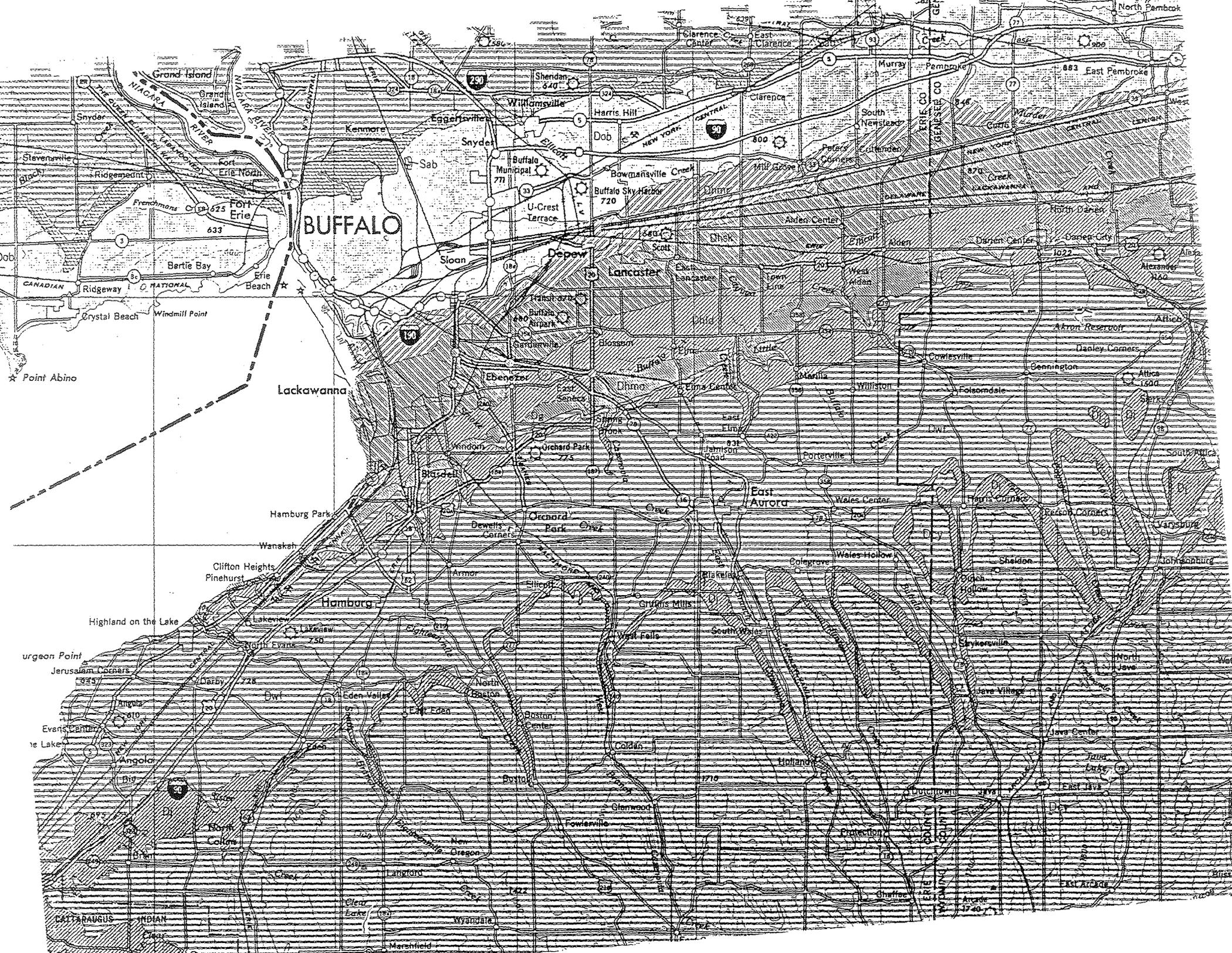
Dob In New York: Onondaga Limestone—Seneca, Morehouse (cherty), and Clarence Limestone Members, Edgecliff cherty Limestone Member, local coral bioherms; Bois Blanc Limestone—sandy, thin, discontinuous.
In Ontario: Dundee Limestone; Lucas Formation—dolostone, limestone (Anderdon); Amherstburg Formation—limestone, dolostone, sandstone (Sylvania); Bois Blanc Formation—dolostone, limestone, sandstone (Springvale).
Do Oriskany Sandstone.

AKRON DOLOSTONE AND SALINA GROUP
400-700 ft. (120-210 m.)



Sab Akron Dolostone; Bertie Formation—dolostone, shale.
Scv Camillus, Syracuse, and Vernon Formations—shale, dolostone, salt, and gypsum.

LOCKPORT GROUP
150-200 ft. (45-60 m.)



BUFFALO

Lackawanna

Hamburg

Depew

Lancaster

East Aurora

CANADIAN NATIONAL

★ Point Abino

urgence Point

Evansville

CATTARAUGUS

INDIAN

WYANDOTA

Marshfield

WEST

NEW YORK

RECEIVED

NOV 20 1950

ENVIRONMENTAL SANITATION

REC
25

Edward H. Sticht
188 Zurbrick Road
Depew, N. Y.
November 14, 1950

New York State
Department of Health and Sanitation
Albany, New York

Gentlemen:

I am writing to complain of an intolerable condition that has taxed the patience of all the people of this area for the past ten years. It is in regards to the disposition of the garbage and refuse within the village of Depew.

Ten years ago the village dump was located on the north bank of Cayuga Creek at the Bordon road bridge. This particular spot is about $\frac{1}{2}$ mile down stream from my property and about $\frac{1}{2}$ miles down stream from the recently completed Federal Government Flood Control Project through the village of Lancaster. Dispite complaints and local public petitions to the village board the dump has spread over the valley destroying the only scenic asset that the village possesses. It now occupies an area about $\frac{1}{2}$ mile square and out of all proportion to requirements. Until recently fires were burning constantly. Fortunately this evil has been corrected. However, the village authority promised faithfully, or rather in bad faith to keep the garbage covered at all times with the following result:

Not once through-out the entire summer was the garbage covered, but was left open to breed flies and rats, and to contaminate the air. The air reeked with the odors of decaying garbage through-out the summer. It is fortunate that a Polio Epidemic was not started from the result of this contamination.

Recently the village took upon itself the exploitation of the top soil on this village property which consists of sedimentary soil lying on bed rock about seven feet in depth. Just this past week they have completed a contract with a private concern to remove ten thousand yards of soil with the result that a hole remains about 500 x 100 feet in area. A levy about 50 feet wide remains between this excavation and the stream bed proper. An earlier digging is being filled with garbage which is about six feet higher than the original surface dispite a town ordinance requiring the removal of top soil to be refilled to the original surface, six inches of soil replaced and subsequently planted.

With the advent of a fall rain and the melting snow in Spring, the flood waters leave the Lancaster Flood Control Project, which ends at Penora Street and fans out into this broad low valley west of Transit Road where the dumping area is located, forming a vast lake with the waters rising at least ten feet high on our

southern bank. The result is that the above superimposed rubbish forms an island in the center of the lake with the obvious result that much of this refuse is flushed out, thereby further polluting the stream and spreading the contamination further. Last fall the earlier excavation remained filled with water after a flood resulting in a lake which became a potential danger for any children who might have ventured out on the thin ice which formed during the winter months. No drainage has yet been provided for this excavation or the recent one.

This past week my neighbor upon complaint was again promised that the garbage would be covered. This will be impossible unless soil is brought in for that purpose. There is no segregating of garbage which might facilitate coverage material. Are they to continue piling rubbish higher than the natural flood plain? What action can be taken to compel the authorities to build a much needed incinerator?

The village of Depew lies in two townships. The major part and dense population lies in the township of Lancaster. Transit Road is the dividing line with the smaller part of the village and sparsely populated area lying in the Township of Cheektowaga. The township of Cheektowaga has a large modern incinerator located on Union Road. Is it possible to force the town to use this incinerator? The Township of Lancaster is at this moment planning on building an incinerator. Between the two townships, can it not be possible to remove this blight and contamination from this area.

Yours truly,

Edward M. Sticht

P.S. Receipts & map need not be returned.