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example: *letter . Year-Month . File Year-Year . pdf*

*report . AWS . 915100 . 1984 - 01 - 01 . Monitoring - Program - Plans* . pdf

example: *report . Site Number . Year-Month . Report Name . pdf*

Project Site numbers will be proceeded by the following:

Municipal Brownfields - B

Superfund - HW

Spills - SP

ERP - E

VCP - V

BCP - C



# **ENGINEERING DEPARTMENT**

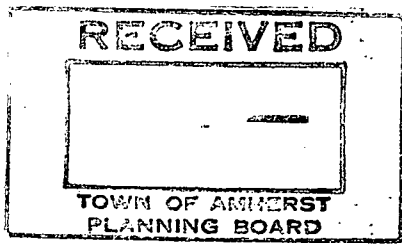
**Proposal For**

**Environmental Monitoring Program**

**THE GREAT BAEHRE CONSERVATION AREA**

**ROLAND DOAN, JR., P.E. TOWN ENGINEER**

*Job 84-69*



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# THE GREAT BAEHRE CONSERVATION AREA

## TOWN OF AMHERST

### ERIE COUNTY

#### GEOGRAPHIC LOCATION

The locational map and site plan of the Great Baehre Conservation Area are located in Exhibits #1 and #2.

The proposed Conservation Area encompasses some 50 acres in the central portion of the Town of Amherst, together with an additional 450 acres of adjacent wet-lands.

#### HISTORY

The Great Baehre Conservation Area and the contiguous 48 acre Park as shown on the enclosed maps, have been identified as open space areas for the past twenty-two years through the Town's master plan and environmental study processes. The proposed park area and adjacent 450 acre wetland were identified on the 1962 Master Plan as "Proposed Recreation and Ponding Area". This was further delineated in 1968 when the Development Plan (master plan) identified the area as "Proposed Open Space" and "Proposed Greenbelt or Drainage Easement".

In 1972 the Erie County Environmental Management Council working with the University of Buffalo prepared a detailed environmental study including the proposed park area. This study identified the area adjacent to the park site as the best example of a wooded wetland forest in Erie County. Further The Town Conservation Advisory Council, in its Open Space Index published in 1975, identified the Hopkins Road Swamp Area - of which the dump site is a part - as a prime area for storm water storage, environmental education and recreation.

In 1975 the area surrounding the 48 acre project site was designated by the New York State Department of Environmental Conservation as a protected freshwater wetland.

#### BACKGROUND

There is a lack of public recreation space available to the 108,700 residents of the Town. In the 1975 approved Community Development Plan it was reported that there were 2,146 acres of open space recreation land in the Town, of which 650 acres were Town owned. Of the remainder, almost 1000 acres were in private use (mostly golf courses) while approximately 250 acres were in school district ownership. Thus, public park and recreation space amounted to approximately 6.5 acres per 1000 population, while the generally accepted park and recreation standards recommend that there should be approximately 10 acres of public park and recreation space per 1000 population. Hence, according to this standard there is a deficiency of approximately 350 acres in the Town of public recreation space.

Of major importance is that there are no special recreation areas in the Town park system to serve the estimated 1600 handicapped persons residing within the Town who, because of their physical and mental limitations, require special facilities and park design. In part this has been because the Town has lacked sufficient funds to acquire land and construct the specialized facilities needed.

The Proposed Great Baehre Conservation Area provides an opportunity for the Town to provide these facilities for the first time. By utilizing the old dump site - which was once used for domestic wastes, and is a centrally located site of sufficient size to create a park and recreation facility - the Town will be able to provide the most cost effective site for a recreational area for the handicapped. In this way it is hoped that the Town of Amherst may meet the community and institutional need for a balanced Town recreation facilities inventory which includes an outdoor facility for handicapped.

#### OBJECTIVES

The following objectives describe the opportunities that the 48 acre former Town and Village dump site will fulfill by its development as a Town special recreation area.

- Provide a special park and recreation area for developmentally disabled persons of all ages.
- Reduce a mosquito problem created by the dump and surrounding protected wetlands which is a nuisance to adjacent residential areas.
- Provide positive re-use of former municipal dump site.
- Provide a special recreation area at a greatly reduced cost since no land has to be acquired.
- Provide a 48 acre special recreation facility in an area near the center of Amherst, easily accessible to area residents. The central location will be economical because of the short driving distance from homes, schools and metropolitan institutions for developmentally disabled persons who will use it.
- Provide specialized outdoor recreational services for a underserved group of residents. (Approximately 1.5 percent of Town residents (1630 people) are estimated to be handicapped).
- Integrate recreation opportunities for able-bodied and disabled residents.
- Provide a major recreation area for all Town residents at minimal cost, since the land is publicly owned and does not have to be acquired.
- Create a positive image (park) to adjacent residential areas and remove a negative factor (dump) thereby creating a more positive tax assessment character to the area.

- Utilize State University of New York at Buffalo Architecture Department's special expertise in recreational design and construction for the developmentally disabled, to design the handicapped recreation areas.

- Permit the park to be used as an outdoor learning center for architecture and other students to periodically evaluate the proposed University assisted recreational facilities and their uses.

#### SCHEDULE

The schedule of activities to prepare preliminary plans is shown in the enclosed documentation. All of the activities listed through March 1984 have been accomplished with the exception of printing the final report. (as new information e.g. soil testing becomes available, it is considered for addition). Design refinement is being done at present.

#### PROGRAM

In March 1983 the Amherst Conservation Advisory Council recommended the Great Baehre Conservation Park project to the Town Board which, in turn, approved the project's initiation. The Town Planning Department then developed a schedule of background research and design alternatives, which were completed in late Fall 1983.

The Town Board has subsequently approved further design of the 48 acre site to bring the concept to a development design level (Exhibit #3). In addition, a study of topography on the dump site has been undertaken, as has a watershed study for the area of the wetland surrounding the park site. Upon completion of the watershed study, alternative approaches proposed will be evaluated to determine what water retention facilities should be created. Since Water retention affects the proposed park site, it is anticipated that the park will have two major drainage channels at its boundary and a retention pond providing both flood control and recreation functions.

Municipal records indicate that the landfill was used for domestic waste. It is proposed that the Town Engineering Department, in cooperation with NYS DEC, will perform soil and water testing to verify the absence of toxic materials at the site. The placement, type and amount of testing is set forth in the following sections which, it is hoped, will satisfy the DEC's concerns.

Following the results of the testing analysis, site preparation will commence with rough grading of the 48 acre site. The grading plan which will establish different park area elevations is a key to the success of the park to separate activity areas and provide proper drainage (See exhibit #4 for existing contours). Fine grading, seeding and planting of the park will occur as each geographic area or phase has sufficient funding for development and as each has proven to provide no adverse health hazards.

## PRELIMINARY ANALYTICAL EVALUATION

The Great Baehre Conservation Area on Hopkins Road was initially analyzed on August 29, 1983 with follow up analyses conducted on October 26, 1983, November 9, 1983, and December 8, 1983. A total of four (4) wells were installed for these original analyses (See exhibit #5). An additional spot check was performed for Arsenic and Selenium at well #1 on July 5, 1984.

Initial in situ analyses of pH, dissolved oxygen and temperature showed that pH was the most reliable indicator of representative groundwater composition. Thereafter each well was successively bailed in 10 liter amounts and the resulting well pH after each bailing was used to determine when the sample composition had reached a plateau. Samples were then withdrawn for analysis for conductivity, alkalinity, chloride, TKN, total phosphorus, COD, BOD5, TSS, VSS, the priority pollutant metals, and total halogenated organics.

The results of these analyses are summarized in Exhibits #6 - #9. These results show that while this groundwater is not suitable for drinking (some of the priority pollutant scans for metals show concentrations which exceed the limits set for drinking water) it is in general non-hazardous, that is the concentrations do not exceed the limits of E.P. toxicity for hazardous wastes. The only possible exceptions to this are the results found at well #1 for arsenic on 10/26, 11/09, and 12/08, and for Selenium on 11/09. Because these results are so highly variable (over four orders of magnitude for arsenic) it seems unreasonable at this time to believe that a toxicity problem exists. Further study will be necessary to explain the high variability encountered for arsenic and to verify the preliminary results so far obtained.

## PROPOSED GROUNDWATER MONITORING AND SOIL CORE ANALYSES PROGRAM.

Previous analytical results from four existing ground water monitoring wells at the Great Baehre Conservation Area show highly variable concentrations of arsenic and selenium. As a result it is the Town's proposal to establish an adequate monitoring program to determine the actual concentrations of these elements present. It is our intention to have all wells dug and core samples taken by Empire Soils, Inc. (See exhibit #10), and analytical work performed by the laboratory staff at the Town of Amherst WPCF #16. This proposed program attempts to resolve the question of whether the preliminary analytical results are truly representative of the composition of the Conservation Area or if they are artifacts of the analytical procedure itself.

## 1. Proposed new monitoring wells and analyses:

Four new wells will be added and existing well #4 will be deepened such that these wells will extend underground to the 576 foot contour. (See exhibit #11 for locations.) If observations of the proposed core samples show a highly porous layer(s) which invites further investigation with respect to ground water migration, this new depth(s) will be used rather than the 576 foot contour to enable monitoring of a route(s) by which ground water could move away from the Conservation Area.

Ground water samples will be collected according to EPA-530/SW-611: Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities. All monitoring wells will be pumped or bailed prior to sample withdrawal until the sample composition is constant. In the field, pH has been a useful parameter for this purpose. Ground water samples will be preserved for metals and total halogenated organics analysis as recommended in EPA-600/4-82-029: Handbook for Sampling and Sample Preservation of Water and Wastewater.

Ground water samples will be analyzed principally for the priority pollutant metals and total halogenated organics according to EPA-600/4-79-020: Methods for Chemical Analysis of Water and Wastes. Quality of analytical results will be monitored as per EPA-600/4-79-019: Handbook for Analytical Quality Control in Water and Wastewater Laboratories. All metals analyses will be conducted in-house using an Instrumentation Laboratories Video 12 atomic absorption spectrophotometer. Total halogenated organics analysis will be performed by a consulting laboratory.

The proposed monitoring schedule is quarterly for all wells for two years, annually for the subsequent three years, and termination of monitoring at the end of that period unless the analytical results indicated a need for further testing.

According to EPA sources cited above, PVC is the best material for monitoring well casing and bottom screens. A screw cap or other cover which could be padlocked is recommended. (This is advisable since well tampering has been observed previously and the proposed new wells are in more visible and accessible locations than the current wells.) Wells should generally be marked with a flag to avoid damage from bulldozers and heavy equipment. (This may not be advisable in this case as it would draw attention to wells and invite vandalism.)

## 2. Proposed soil core samples and analyses:

Seven core samples will be taken and analyzed for priority pollutants and total halogenated organics as per the methods cited above and also EPA/SW-846: Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods. (See Exhibit #10 for locations.) Upon extrusion, each core will be photographed next to its respective stratigraphic chart for record-keeping purposes, then the strata will be marked for identification and subsampled for analysis.



A possible future investigation of subsurface methane concentrations is recommended, especially for areas where stockpiling of leaves has occurred.

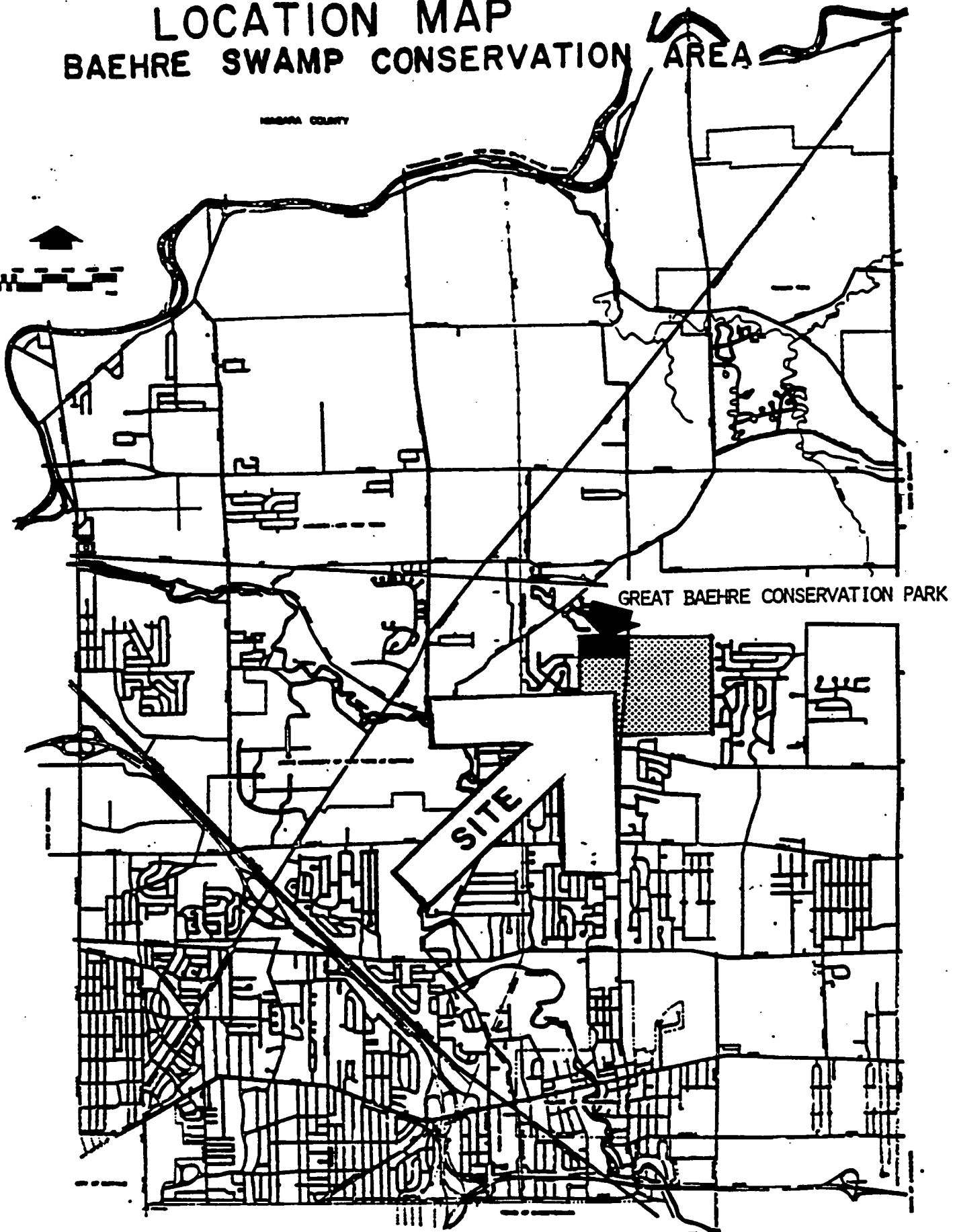
Analytical data on background soil composition could be evaluated to determine the influence of the Conservation Area on the composition of the local ground water. If later determined to be necessary, an investigation of the permeability and fracturing of underlying bedrock could prove useful for observing ground water plume movement other than could be determined from monitoring well and core data.

# TOWN OF AMHERST -

EXHIBIT #1

## LOCATION MAP BAEHRE SWAMP CONSERVATION AREA

WENAMPA COUNTY





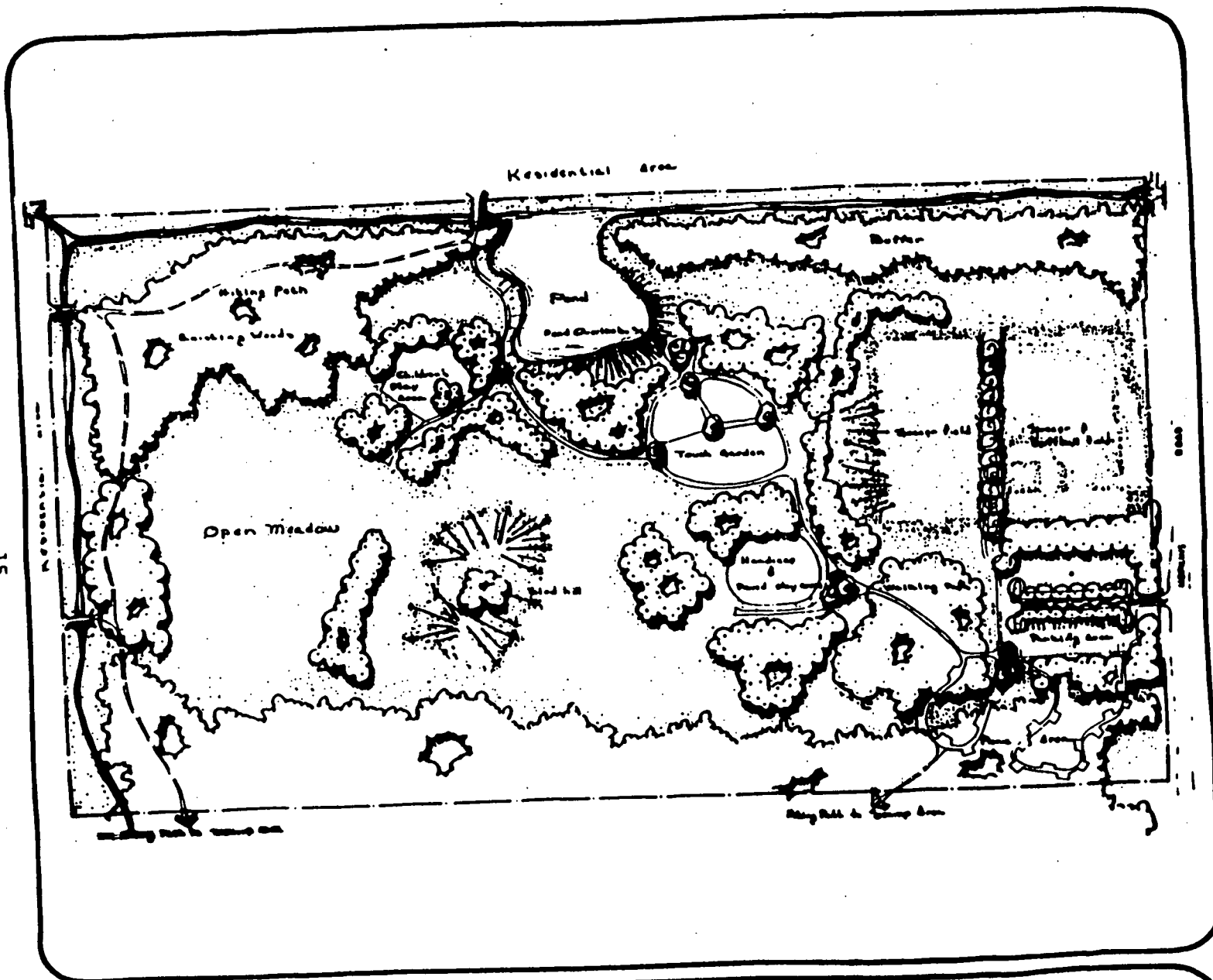


EXHIBIT #3



SCALE 1" = 100'  
DATE

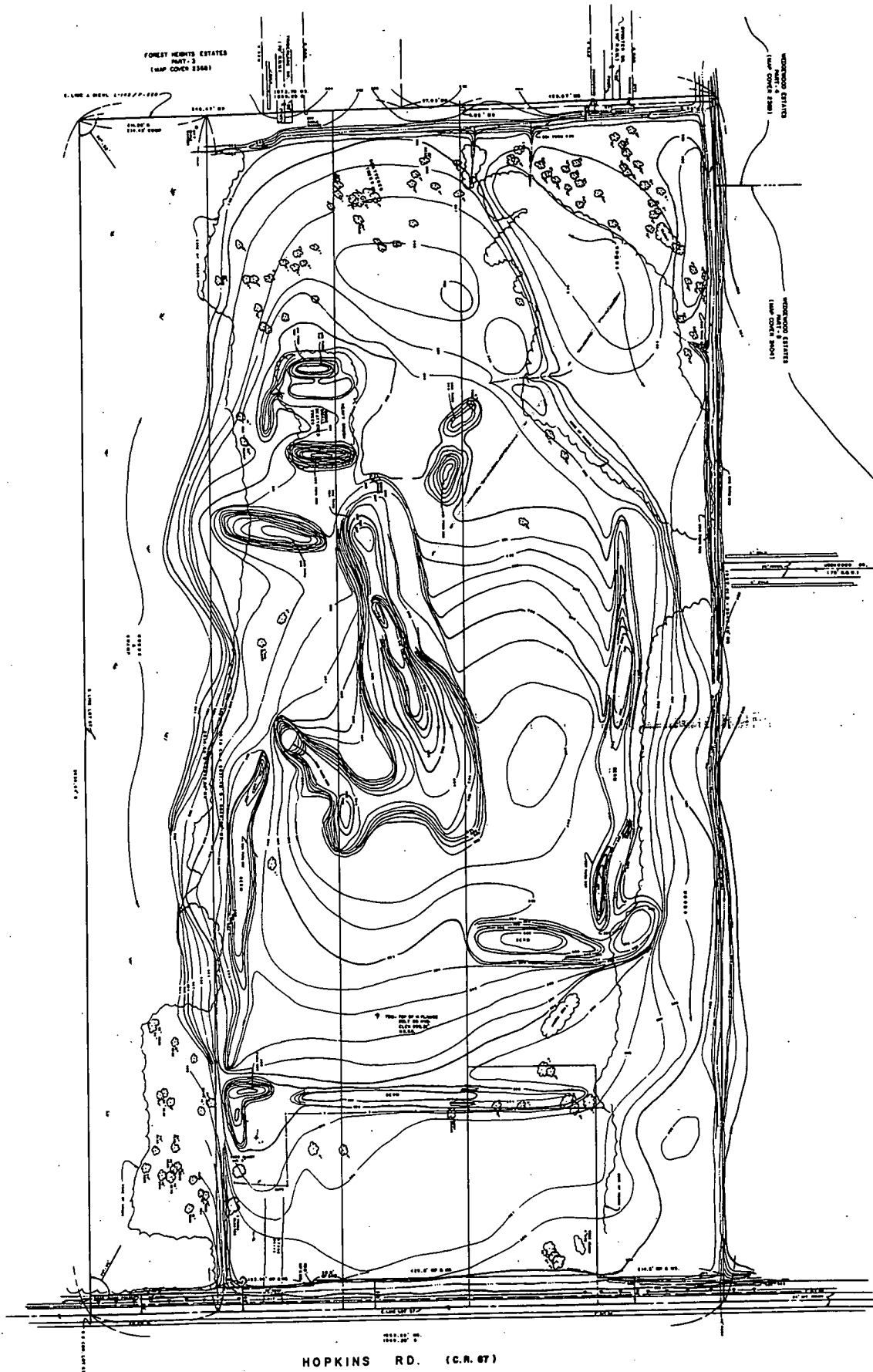
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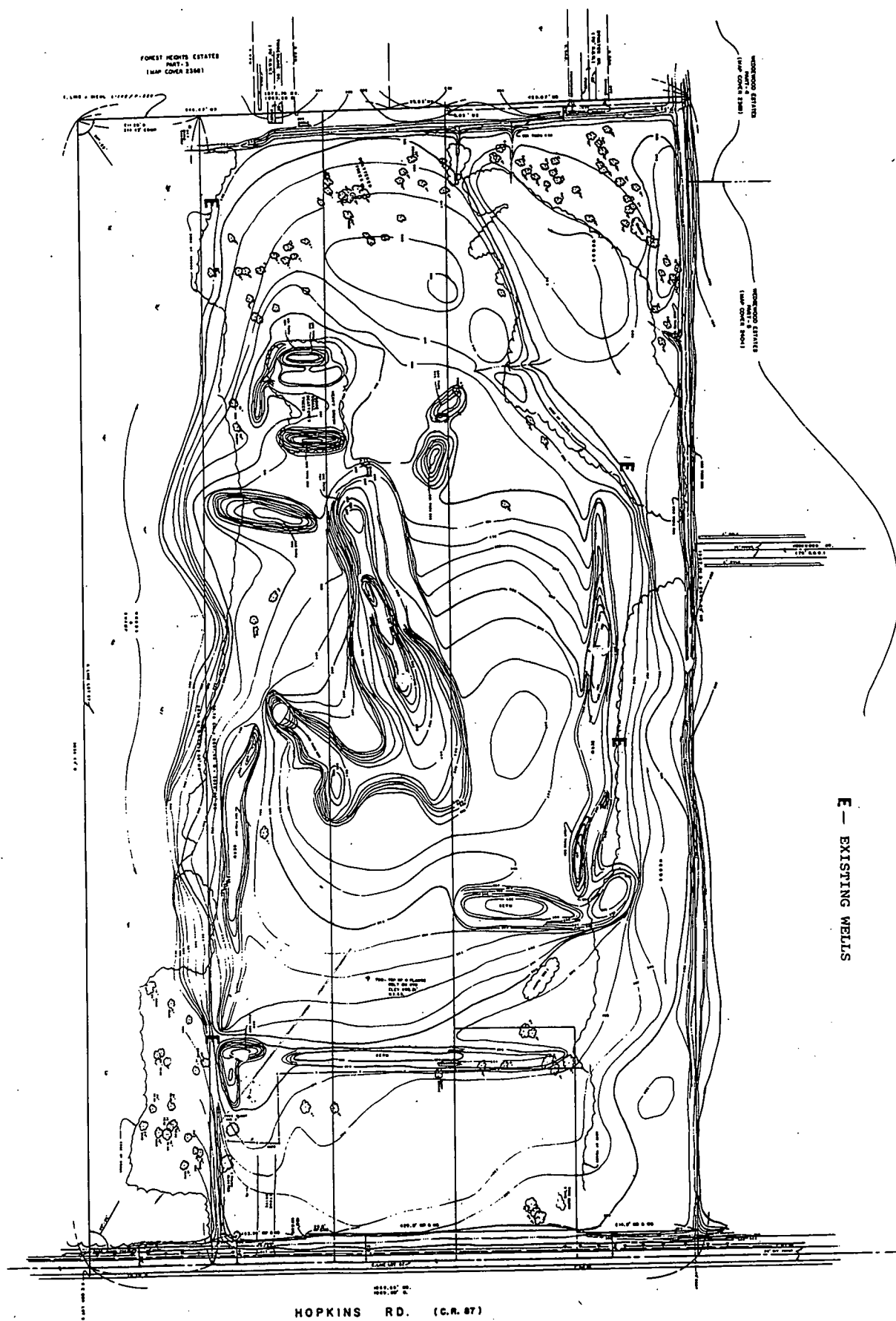
SHEET NUMBER

**THE GREAT BAEHRE SWAMP CONSERVATION AREA**  
**HOPKINS ROAD**  
**WILLIAMSVILLE, N.Y.**

TOWN OF AMHERST

PLANNING DEPARTMENT





6

HOPKINS ROAD DUMP SITE

## WELL #1

Sample Date	8/29/83	10/26/83	11/09/83	12/8/83	7/5/84
Lab ID#	83-1775	83-2279	83-2413	83-2701	84-3133
pH	6.34	6.33	6.52	6.68	7.23
Temperature (C)	17.7	11.8	10.8		
TSS mg/l	528	349	182	106	
VSS mg/l	149	86	75	77	
% Volatile	28	25	41		
COD mg/l	2400	2540	976	1540	
CBOD <sub>5</sub> mg/l	4.20	5.40	5.4		
BOD/COD	0.0018	0.0021	0.0055		
TKN mg/l	21.0	26.5	18.7	7.37	
TP mg/l	2.4	(0.1	2.0	(0.1	
Conductivity	103,600	117,000	56,400		
Chloride mg/l	54,200	58,400	58,800	52,500	
Cu mg/l	1.92	0.246	0.187	0.17	
Ag mg/l	0.140*	0.319*	0.0609*	0.14*	
Be mg/l	0.022	0.0408	0.0936	0.14	
In mg/l	0.145	0.174	3.960	0.068	
Pb mg/l	0.317*	4.760*	0.627*	0.31*	
Se mg/l	0.400*	0.0994*	5.500+	0.36*	(0.002
Cr mg/l	0.021	0.0482	0.120*	0.12*	
Tl mg/l	0.471	9.350	8.470	1.0	
Cd mg/l	0.119*	0.567*	0.945*	0.011*	
Sn mg/l	4.99				
Ni mg/l	1.53	85.4	145.5	83	
Hg mg/l	0.0069	(0.0008	(0.0004	(0.0004	
As mg/l	(0.010	75.3+	33.000+	25.+	(0.005
Ba mg/l	11.4*				
THO mg/l			0.0156	0.0015	
Sb mg/l		3.311	7.57	0.39	

\* EXCEEDS DRINKING WATER STANDARDS

\* EXCEEDS EP TOXICITY STANDARDS

## WELL #2

Sample Date	10/26/83	11/9/83	12/8/83
Lab ID#	83-2280	83-2414	83-2702
pH	6.80	6.86	7.23
Temperature (C)	10.8	10.5	
TSS mg/l	132	53	19
VSS mg/l	23.4	19	
% Volatile	18	36	
COD mg/l	254	81.3	231
CBOD5 mg/l	15.0	13.5	
BOD/COD	0.059	0.166	
TKN mg/l	9.24	7.83	6.26
TP mg/l	0.19	0.27	0.1
Conductivity	2370	2570	
Chloride mg/l	218	247	230
Cu mg/l	(0.050	(0.050	(0.05
Ag mg/l	(0.001	(0.010	(0.001
Be mg/l	0.00105	0.0043	(0.001
Zn mg/l	0.0585	0.0285	(0.05
Pb mg/l	0.0167	(0.300*	(0.005
Se mg/l	0.00904	0.178*	0.079*
Cr mg/l	(0.010	(0.010	(0.005
Tl mg/l	(0.010	(0.010	0.014
Cd mg/l	0.0018	(0.002	(0.0005
Sn mg/l			
Ni mg/l	0.0505	(0.100	0.10
Hg mg/l	(0.0008	0.00056	(0.0004
As mg/l	0.0627*	0.0563*	0.057*
Ba mg/l			
THO mg/l		0.0340	0.00081
Sb mg/l	(0.020		0.022

8/29/83 - NO GROUNDWATER IN WELL

\* EXCEEDS DRINKING WATER STANDARDS

+ EXCEEDS EP TOXICITY STANDARDS



## WELL #3

Sample Date	10/26/83	11/9/83	12/8/83
Lab ID#	83-2281	83-2415	83-2703
pH	6.96	6.82	6.75
Temperature (C)	11.8	11.5	
TSS mg/l	276	568	63
VSS mg/l	23.6	29	5
% Volatile	8.6	5.1	
COD mg/l	365	195	76.9
CBOD <sub>5</sub> mg/l	5.34	1.5	
BOD/COD	0.0146	0.0077	
TKN mg/l	3.15	1.87	1.50
TP mg/l	0.12	0.35	0.1
Conductivity	2770	3200	
Chloride mg/l	340	475	427
Cu mg/l	0.050	0.050	0.05
Ag mg/l	0.001	0.010	0.001
Be mg/l	0.00129	0.0051	0.001
Zn mg/l	0.0638	0.0605	0.05
Pb mg/l	0.0141	0.300*	0.006
Se mg/l	0.00994	0.020	0.070*
Cr mg/l	0.010	0.0182	0.005
Tl mg/l	0.010	0.010	0.018
Cd mg/l	0.0022	0.002	0.0005
Sn mg/l			
Ni mg/l	0.0625	0.100	0.12
Hg mg/l	0.0008		0.0004
As mg/l	0.0669*	0.0338	0.040
Ba mg/l		0.00219	
THO mg/l		0.0144	0.0011
Sb mg/l	0.020		0.027

8/29/83 - NO GROUNDWATER IN WELL

\* EXCEEDS DRINKING WATER STANDARDS

+ EXCEEDS TP TOXICITY STANDARDS

HOPKINS ROAD DUMP SITE

WELL #4

\* 8/29/83, 10/26/83, 11/9/83, AND 12/8/83 NO GROUNDWATER IN WELL



August 16, 1984

Town of Amherst  
Engineering Department  
1100 North Forest Road  
Williamsville, New York 14221

Attention: Thomas Wicks

Reference: Groundwater Monitoring - Soil Core Analysis  
Hopkins Road Dump

Gentlemen:

As per my recent site visit and meeting with Mr. Tom Wicks of the Town of Amherst Engineering Department, we are pleased to present our proposal to perform soil sampling and monitoring well installation at the Hopkins Road Dump in Amherst, New York. A telephone conversation with Ms. N. Brown-Fonte was also conducted to better establish the required scope of services.

This scope has been defined as follows:

1. Installation of four (4) new monitoring wells at locations as indicated on the topographic survey plans prepared by Wendel Engineers, P.C. in June of 1984. Also redrilling of existing well #4 in order to deepen it to elevation 576. The installation of these wells will be as per Figure No. 51 which was supplied to us.
2. Drilling and continuous soil sampling from the surface to bedrock at a total of seven (7) locations as located on the Wendel Engineers' Plan. The sampling will include continuous split spoon samples which when extracted from the borehole will be photographed and marked for identification by representatives of the Town of Amherst.

The cost of our services will be as follows:

1. Mobilization and Demobilization, Drill Rig and Crew
  - a. Providing no dozer is necessary or Town of Amherst provided equipment Lump Sum -- \$250.00



Town of Amherst  
August 16, 1984  
Page 2

1. b. If Empire provides dozer \$200.00/day
2. Drilling with augers to collect samples or to install wells
  - a. 3 3/4" diameter augers (for 2" diameter wells and split spoon sampling of soils) \$9.50/ft
  - b. 6 1/4" diameter augers to install 4" diameter wells \$17.50/ft
3. Split Spoon Samples \$5.00/each
4. Well Installation - including materials sand/cement/bentonite/etc.
  - a. 2" diameter PVC with 5' slotted screen \$13.00/ft
  - b. 4" diameter PVC with 5' slotted screen \$18.00/ft
5. Protective Casing with Locking Caps and Locks
  - a. 4" diameter installed \$120.00/each
  - b. 6" diameter installed \$160.00/each
6. Standby Time to develop wells, assist in sampling or to decon sampling and drilling equipment \$90.00/hour

We are in a position to begin work within seven to ten days after formal authorization to proceed is received.

Our payment terms are net 30 days from date of invoice; interest on unpaid balances will accrue at a rate of prime plus 3% per month.

If this proposal meets with your approval, please sign the acceptance copy of this letter and return it to our office as formal authorization to proceed.



Town of Amherst  
August 16, 1984  
Page 3

Thank you for considering Empire for this project. We feel that our vast expertise in the area of monitoring wells and groundwater hydrology will benefit the quality of your program.

If you should require any further information, please do not hesitate to contact our office at any time.

Very truly yours,

EMPIRE SOILS INVESTIGATIONS, INC.

*Stanley J. Blas, Jr.*  
Stanley J. Blas, Jr., C.E.  
Manager - Western District

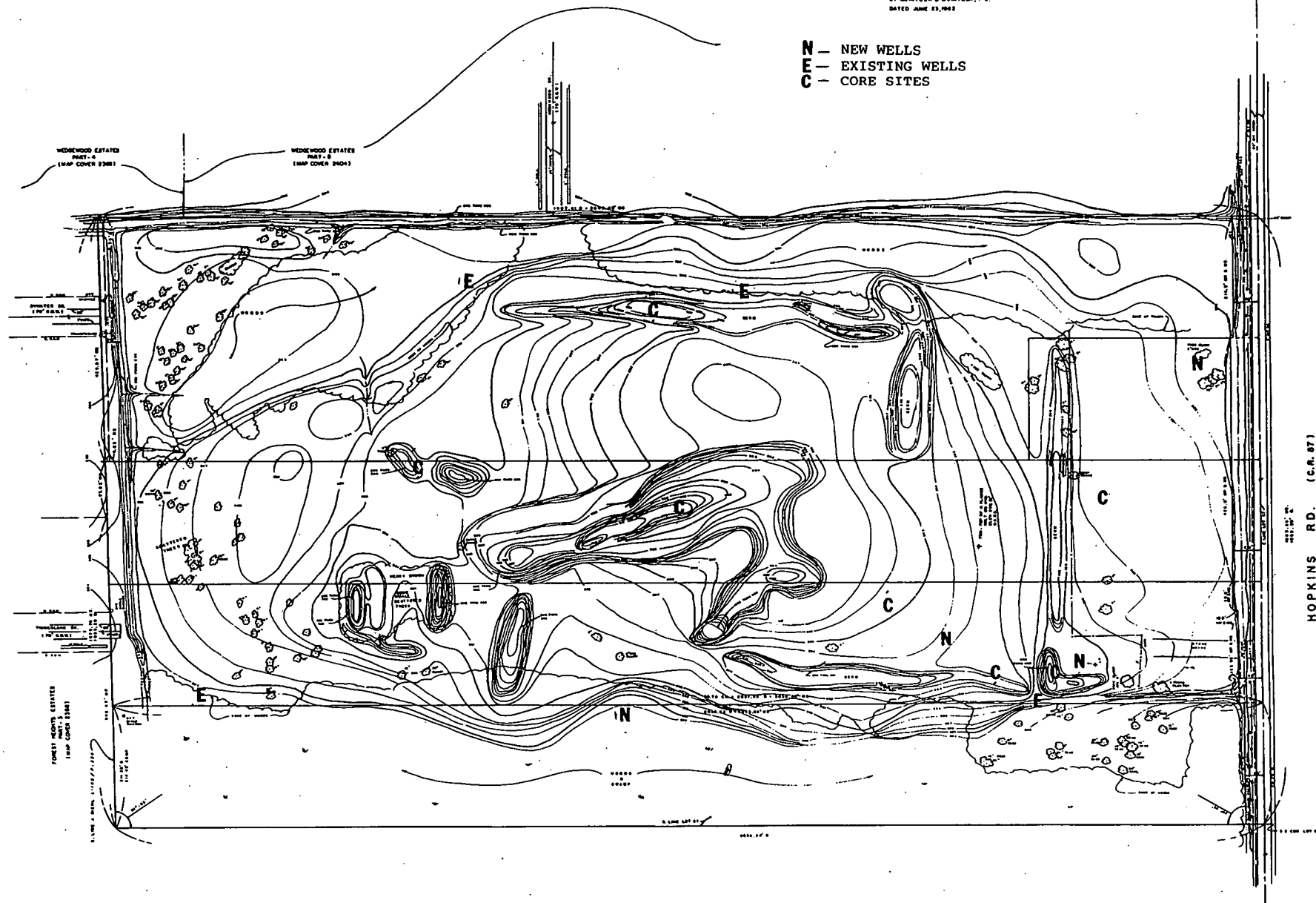
gel

ACCEPTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
FOR: \_\_\_\_\_ DATE: \_\_\_\_\_



PROPERTY LINE DATA TAKEN FROM SURVEY  
BY WHITSON & WHITSON, P.C.  
DATED APRIL 23, 1942

N - NEW WELLS  
E - EXISTING WELLS  
C - CORE SITES



PROPOSED  
GENERAL ACTIVITIES SCHEDULE \*  
GREAT BAEHRE CONSERVATION AREA PARK  
1984-1985

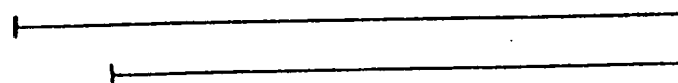
1985

MAY   JUNE   JULY   AUG.   SEPT.   OCT.   NOV.   DEC.   JAN.   FEB.   MAR.   APR.

SITE PLAN & DESIGN

Refine design

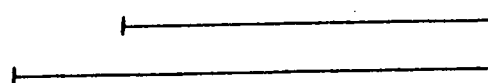
Site Supervision  
grading  
planting/seeding



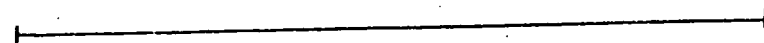
SITE ANALYSIS

soil and water testing

soil characteristics and hydrology



WATER SHED ANALYSIS



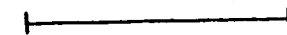
Implementation

Investigation of Easements

Donations, Density Transfers



Preparation of Activities and  
Procedures Report (Information  
and Education)



\* Pursuant to State aid to Environmental Management Councils and Conservation Advisory Councils, NYSDEC.



RECEIVED

DEC 12 1985

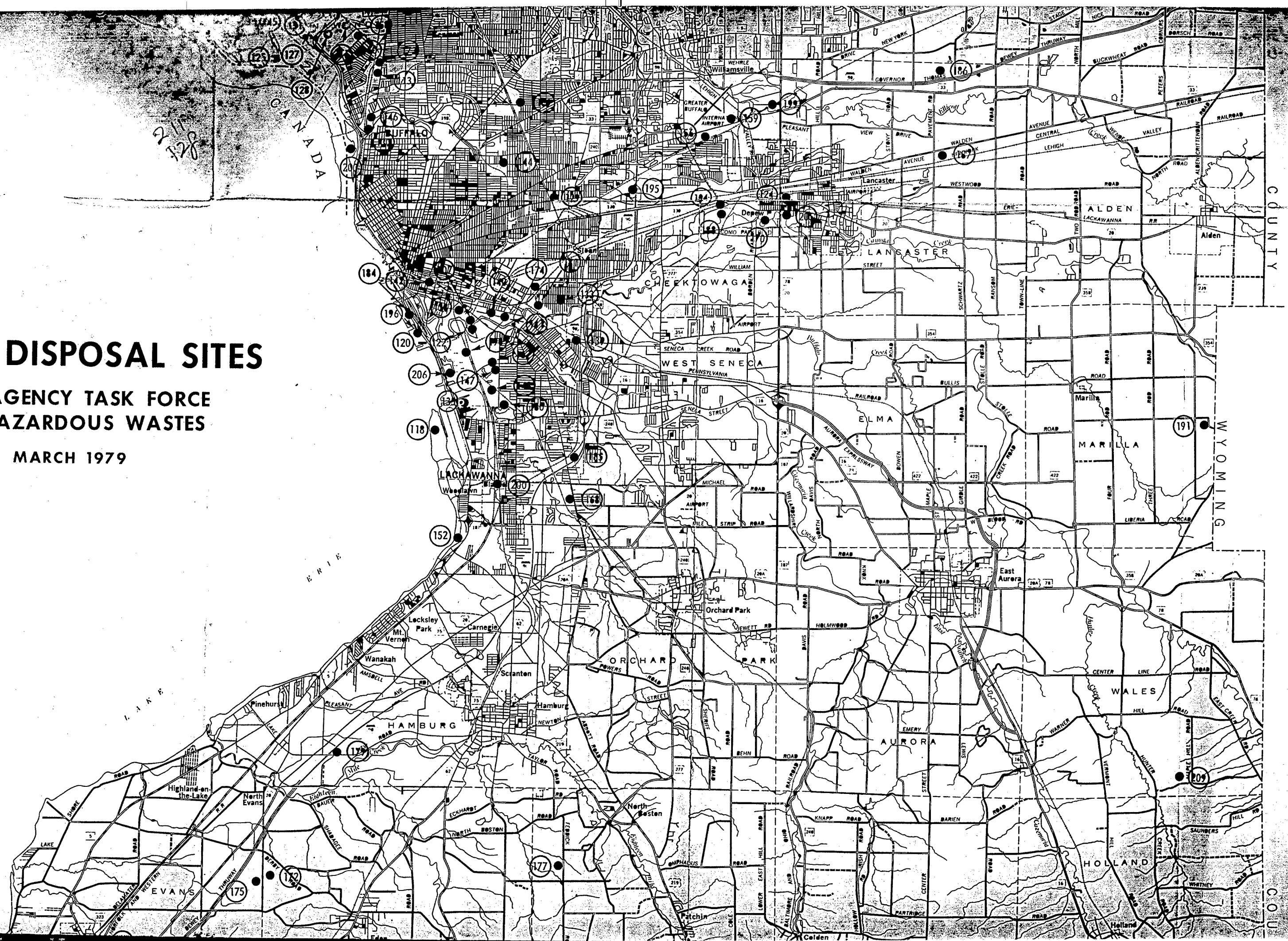
U.S. DEPT. OF  
ENVIRONMENTAL CONSERVATION  
REGION 9



# WASTE DISPOSAL SITES

INTERAGENCY TASK FORCE  
ON HAZARDOUS WASTES

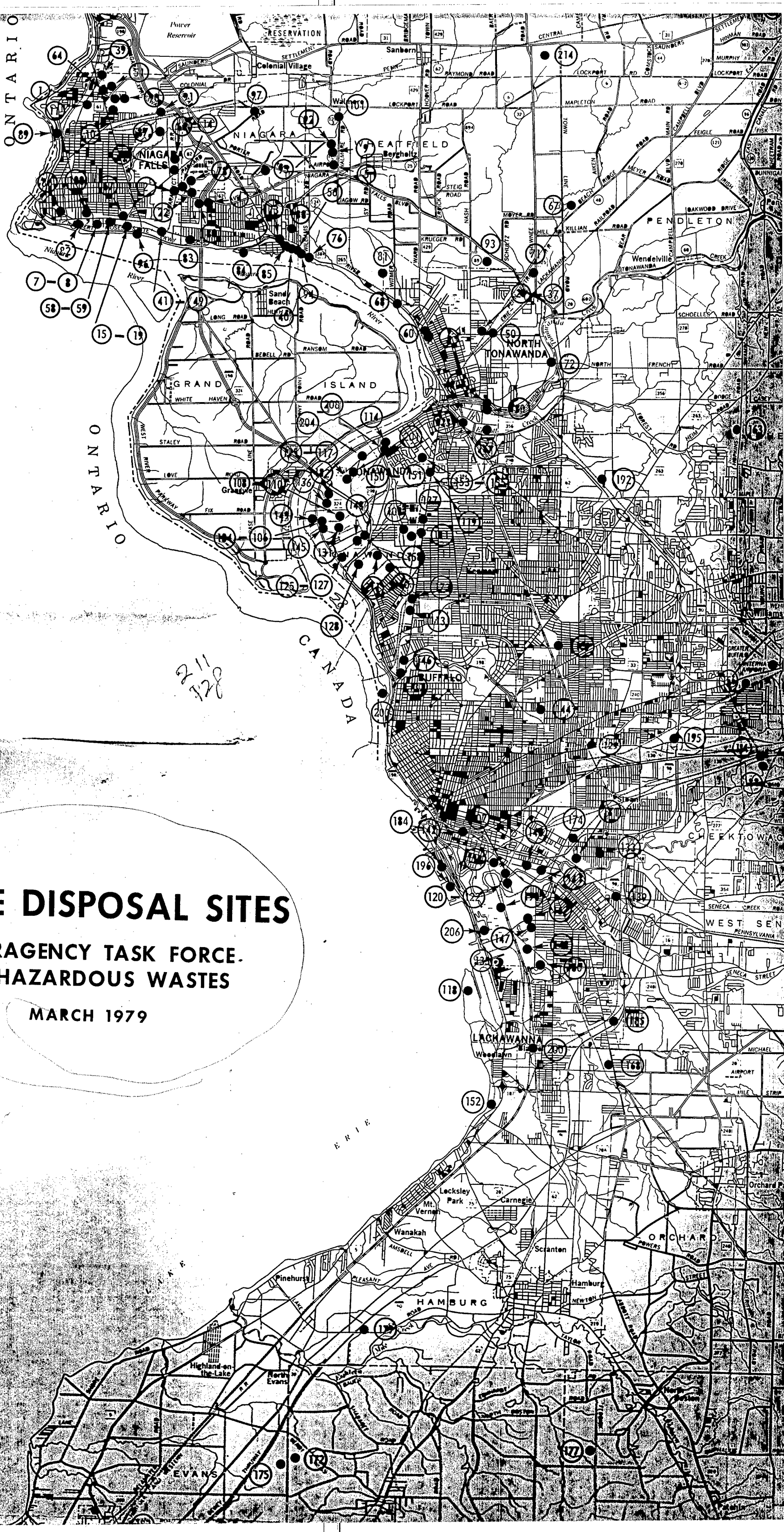
MARCH 1979



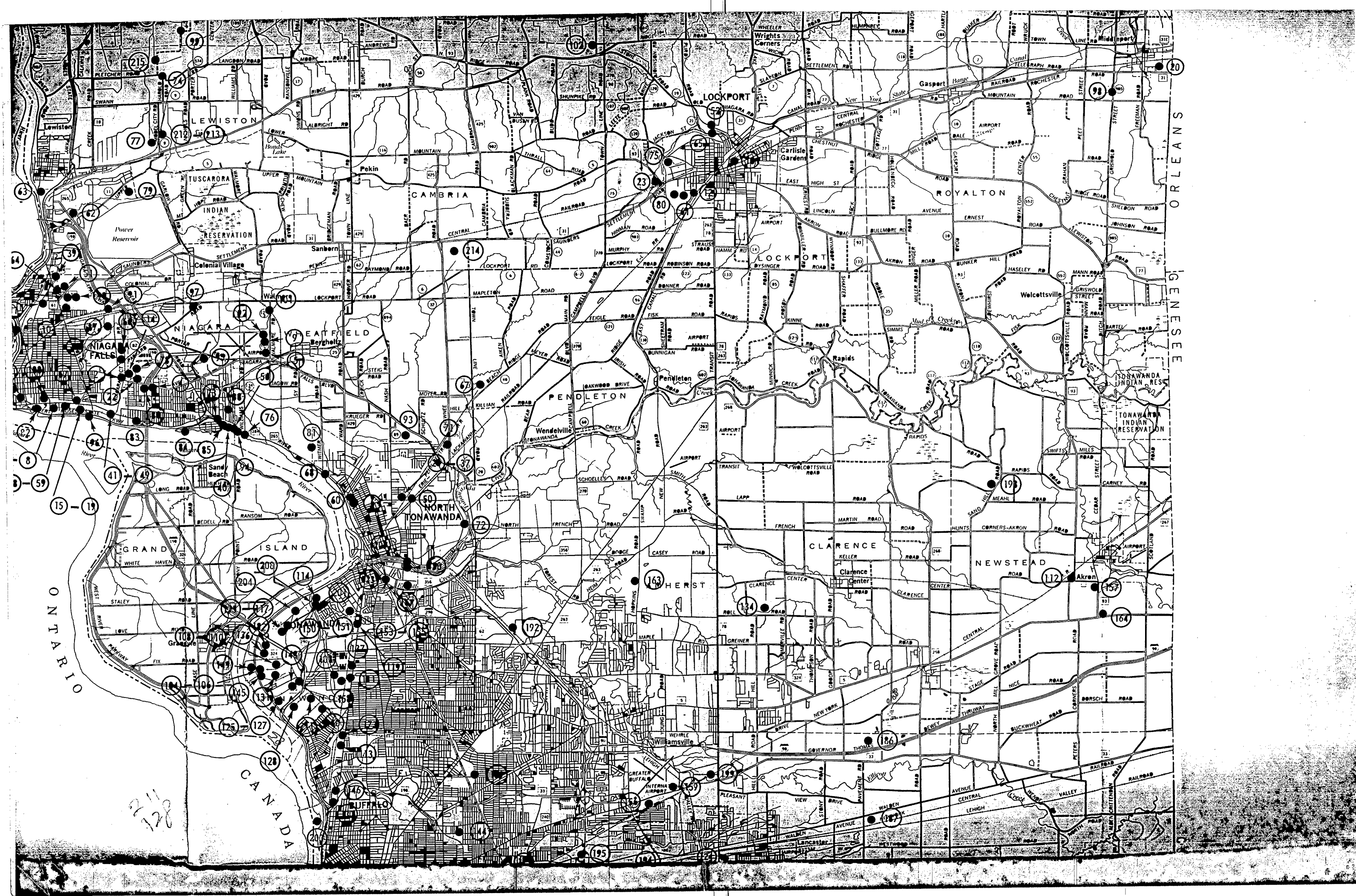
# WASTE DISPOSAL SITES

INTERAGENCY TASK FORCE.  
ON HAZARDOUS WASTES

MARCH 1979







# NIAGARA - ERIE

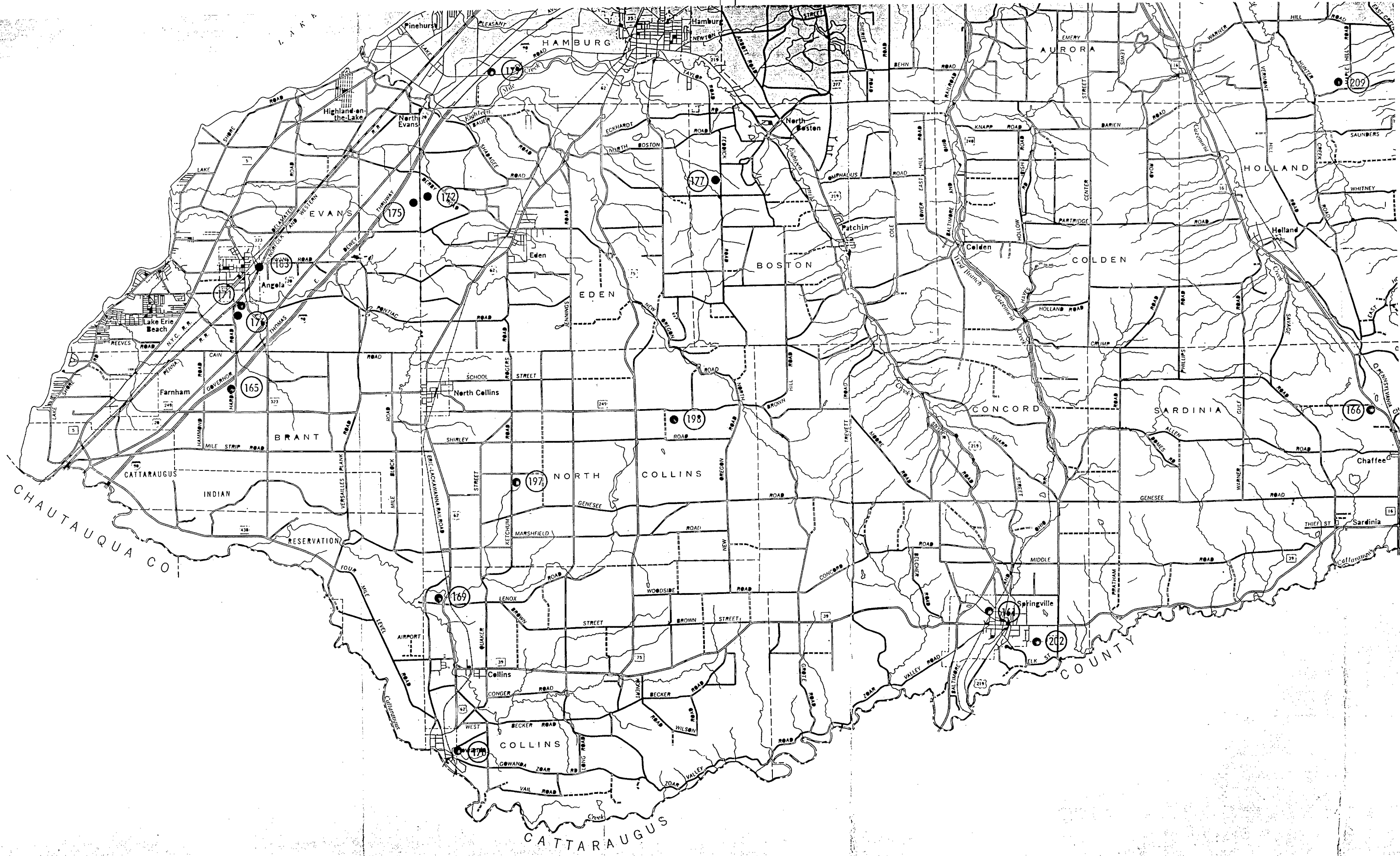


75 →  
City of Lockport  
Landfill  
Under Investigation



107	3	ERIE	ALLIED CHEMICAL, IND. CHEM. DIV., LEE STREET, BUFFALO
108	2	ERIE	ALLIED CHEMICAL, (TONAWANDA COKE), RIVER ROAD, TONAWANDA
109	2	ERIE	ALLIED CHEMICAL, (TONAWANDA COKE), RIVER ROAD, TONAWANDA
110	2	ERIE	ALLIED CHEMICAL, (TONAWANDA COKE), RIVER ROAD, TONAWANDA
111	2	ERIE	ALUMINUM MATCH PLATE, MILITARY ROAD, KENMORE
112	3	ERIE	AMAX SPECIALTY METALS, HAKE ROAD, AKRON
113	3	ERIE	THE ANACONDA COMPANY, MILITARY ROAD, BUFFALO
114	2	ERIE	ASHLAND PETROLEUM, RIVER ROAD, TONAWANDA
115	3	ERIE	ASHLAND PETROLEUM, RIVER ROAD, TONAWANDA
116	3	ERIE	ASHLAND PETROLEUM, RIVER ROAD, TONAWANDA
117	2	ERIE	ASHLAND PETROLEUM, RIVER RD., TONAWANDA
118	2	ERIE	BETHLEHEM STEEL, LACKAWANNA
119	2	ERIE	BISONITE, MILITARY ROAD, TONAWANDA
120	2	ERIE	BUFFALO COLOR CORP., SOUTH PARK AVENUE, BUFFALO
121	2	ERIE	BUFFALO COLOR CORP., PLANT D, SOUTH PARK AVENUE, BUFFALO
122	2	ERIE	BUFFALO COLOR CORP., SOUTH PARK AVENUE, BUFFALO
123	3	ERIE	COLUMBUS-MCKINNON, FREEMONT STREET, TONAWANDA
124	2	ERIE	DRESSER INDUSTRIES, TRANSIT ROAD, DEPEW
125	2	ERIE	DUNLOP TIRE AND RUBBER, SHERIDAN DRIVE, TONAWANDA
126	2	ERIE	DUNLOP TIRE AND RUBBER, SHERIDAN DRIVE, TONAWANDA
127	2	ERIE	DUNLOP TIRE AND RUBBER, SHERIDAN DRIVE, TONAWANDA
128	2	ERIE	DUPONT, RIVER RD. AND SHERIDAN DRIVE, TONAWANDA
129	2	ERIE	ERNST STEEL CORP., WALDEN AVENUE, CHEEKTOWAGA
130	2	ERIE	EXOLON CORPORATION, EAST NIAGARA STREET, TONAWANDA
131	2	ERIE	FMC, SAWYER STREET, TONAWANDA
132	3	ERIE	FEDDERS AUTOMOTIVE, TONAWANDA STREET, BUFFALO
133	2	ERIE	FERRO CORPORATION, WILLET ROAD, LACKAWANNA
134	2	ERIE	GOLD BOND DIV., ROLL ROAD, CLARENCE CENTER
135	2	ERIE	HANNA FURNACE, FUHRMANN BLVD., BUFFALO
136	2	ERIE	I. N. S. EQUIPMENT CORP., RIVER ROAD, TONAWANDA
137	3	ERIE	LUCIDOL DIV., MILITARY ROAD, TONAWANDA
138	3	ERIE	MACNAUGHTON-BROOKS, BOLTON PLACE, BUFFALO
139	2	ERIE	MADISON WIRE, INDIAN CHURCH ROAD, BUFFALO
140	2	ERIE	MANZEL DIV., BABCOCK STREET, BUFFALO
141	2	ERIE	MOBIL OIL, ELK STREET, BUFFALO
142	3	ERIE	MOLLENBERG-BETZ MACHINE, SCOTT STREET, BUFFALO
143	2	ERIE	O-CEL-O PRODUCTS, SAWYER AVENUE, TONAWANDA
144	2	ERIE	OTIS ELEVATOR, DUTTON AND NORTHLAND AVENUES, BUFFALO
145	2	ERIE	POLYMER APPLICATIONS, RIVER ROAD, TONAWANDA
146	2	ERIE	PRATT AND LETCHWORTH, TONAWANDA, BUFFALO
147	2	ERIE	RAMCO STEEL, HOPKINS STREET, BUFFALO
148	2	ERIE	REPUBLIC STEEL, MARILLA AND HOPKINS STREETS, BUFFALO
149	2	ERIE	ROBLIN STEEL, RIVER ROAD, TONAWANDA
150	2	ERIE	SHANCO PLASTICS, KENMORE AVENUE, TONAWANDA
151	2	ERIE	SHANCO PLASTICS, KENMORE AVENUE, TONAWANDA
152	3	ERIE	SNYDER TANK COMPANY, LAKE SHORE ROAD, BUFFALO
153	2	ERIE	SPAULDING FIBRE, WHEELER STREET, TONAWANDA
154	2	ERIE	SPAULDING FIBRE, WHEELER STREET, TONAWANDA
155	2	ERIE	SPAULDING FIBRE, WHEELER STREET, TONAWANDA
156	2	ERIE	SPENCER KELLOGG, GENESEE STREET, CHEEKTOWAGA
157	3	ERIE	STRIFFIT DIV., CLARENCE RD., AKRON
158	1	ERIE	UNION CARBIDE LINDE, EAST PARK DRIVE, TONAWANDA
159	2	ERIE	WESTINGHOUSE ELECTRIC, GENESEE ST., CHEEKTOWAGA
160	2	ERIE	J. H. WILLIAMS, VULCAN STREET, BUFFALO
161	2	ERIE	WINSMITH DIV., EATON STREET, SPRINGVILLE
162	2	ERIE	ALTIFT, TIFT STREET, BUFFALO
163	3	ERIE	TOWN OF AMHERST, HOPKINS ROAD
164	3	ERIE	BERNARD COPE, BUELL STREET, AKRON
165	3	ERIE	TOWN OF BRANT, NORTH COLLINS ROAD
166	2	ERIE	CHAFFEE LANDFILL, HAND ROAD, SARDINIA
167	2	ERIE	CHEMICAL LEAMAN TANK LINES, FILLMORE AVENUE, TONAWANDA
168	2	ERIE	CHEM-TROL, LAKE ROAD, BLASDELL
169	3	ERIE	TOWN OF COLLINS, ROUTE 42, COLLINS
170	3	ERIE	VILLAGE OF DEPEW, BORDEN ROAD
171	3	ERIE	ED BALL, HOLLAND ROAD, EVANS
172	3	ERIE	EDEN SANITATION, TOWN LINE ROAD, EDEN
173	3	ERIE	EMPIRE WASTE, SKILLEN ROAD, BUFFALO
174	2	ERIE	ERIE LACKAWANNA RAILROAD, CLINTON STREET, BUFFALO
175	3	ERIE	TOWN OF EVANS, TOWN LINE ROAD
176	3	ERIE	TOWN OF EVANS, HOLLAND ROAD
177	3	ERIE	GEORGE COOPER, TOWN LINE ROAD, EVANS

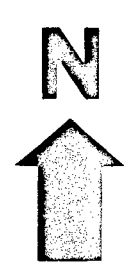
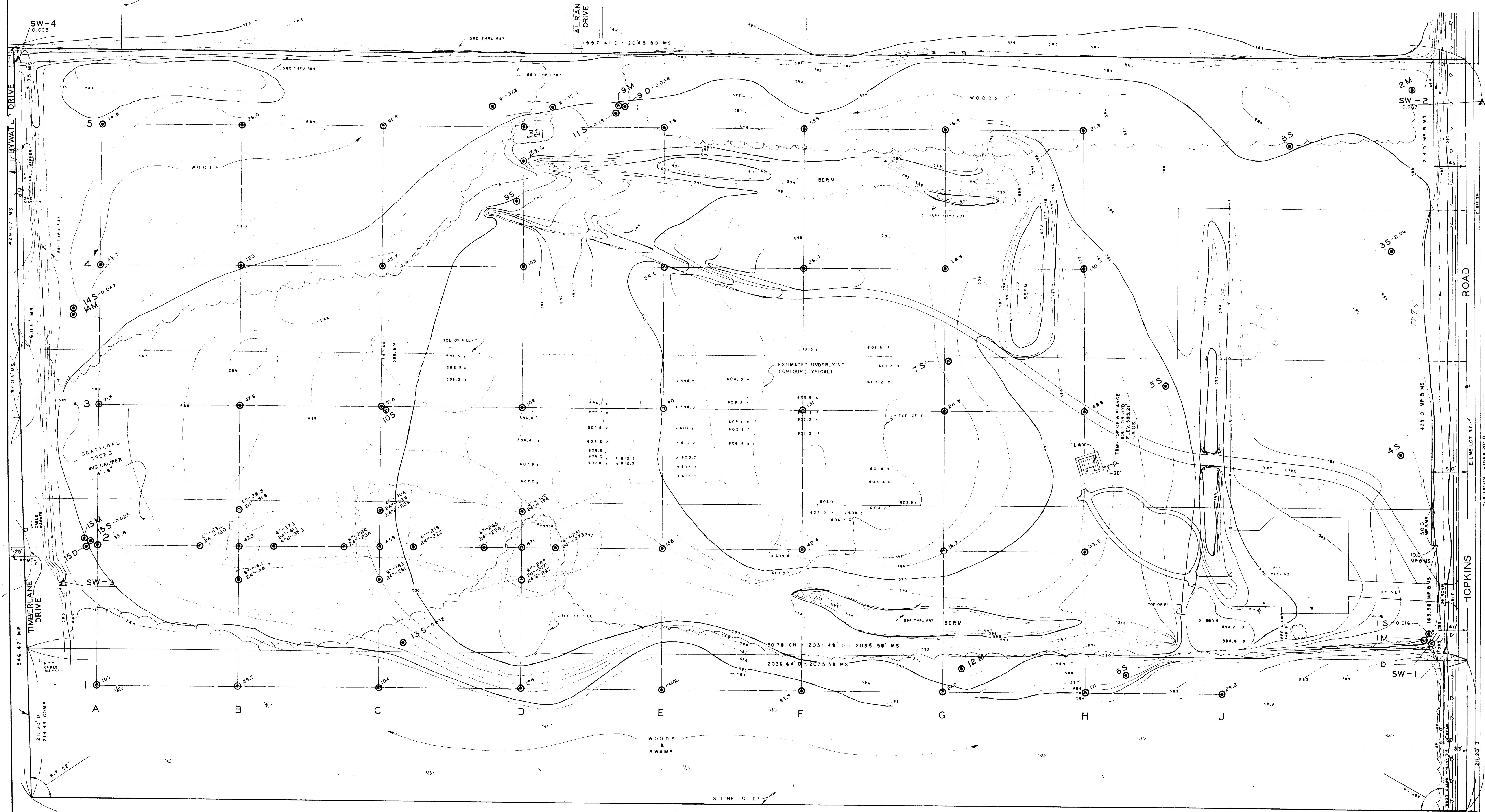
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WASHINGTON, D.C. 20460



SITE NO.	PRIORITY	COUNTY	SITE NAME AND LOCATION
1	2	NIAG	AIRCO ALLOYS, WITMER ROAD, NIAGARA FALLS
2	2	NIAG	AIRCO SPEER CARBON-GRAPHITE, PACKARD ROAD, NIAGARA FALLS
3	2	NIAG	ALLIED CHEMICAL, RANSOMVILLE
4	2	NIAG	BASIC CARBON, CONNECTING ROAD, NIAGARA FALLS
5	2	NIAG	BELL AEROSPACE TEXTRON, ROUTE 62, NIAGARA FALLS
6	3	NIAG	BUFFALO PUMPS DIVISION, OLIVER ST., NORTH TONAWANDA
7	2	NIAG	CARBORUNDUM, BLDG. 89, BUFFALO AVE., NIAGARA FALLS
8	3	NIAG	CARBORUNDUM, BLDG. 82, BUFFALO AVE., NIAGARA FALLS
9	2	NIAG	CARBORUNDUM, WALMORE ROAD, WHEATFIELD
10	3	NIAG	CARBORUNDUM, GLOBAL PLANT, HYDE PARK BLVD., NIAGARA FALLS
11	3	NIAG	CHISHOLM-RYDER COMPANY, INC., COLLEGE AND HIGHLAND AVES., NIAGARA FALLS
12	3	NIAG	DIVERSIFIED MANUFACTURING, INC., OHIO ST., LOCKPORT
13	2	NIAG	DUSSAULT FOUNDARY, WASHBURN ST., LOCKPORT
14	1	NIAG	DUPONT, NECCO PARK, NIAGARA FALLS
15	1	NIAG	DUPONT, WEST YARD, NIAGARA FALLS
16	1	NIAG	DUPONT, BLDG. 301, NIAGARA FALLS
17	1	NIAG	DUPONT, BLDG. 117, NIAGARA FALLS
18	2	NIAG	DUPONT, S. BOUNDARY, NIAGARA FALLS
19	2	NIAG	DUPONT, W. OF HYDE PK. BLVD., NIAGARA FALLS
20	1	NIAG	FMC, NIAGARA ST., MIDDLEPORT
21	2	NIAG	FRONTIER BRONZE CORP., PACKARD ROAD, NIAGARA FALLS
22	2	NIAG	GREAT LAKES CARBON CORP., PINE AVE., NIAGARA FALLS
23	2	NIAG	HARRISON RADIATOR, UPPER MTN RD., LOCKPORT
24	1	NIAG	HOOKEER DUREZ, PLANT SITE I, NORTH TONAWANDA
25	1	NIAG	HOOKEER DUREZ, PLANT SITE II, NORTH TONAWANDA
26	1	NIAG	HOOKEER DUREZ, PLANT SITE III, NORTH TONAWANDA
27	1	NIAG	HOOKEER DUREZ, PLANT SITE IV, NORTH TONAWANDA
28	1	NIAG	HOOKEER DUREZ, PLANT SITE V, NORTH TONAWANDA
29	1	NIAG	HOOKEER DUREZ, PLANT SITE VI, NORTH TONAWANDA
30	1	NIAG	HOOKEER DUREZ, PLANT SITE VII, NORTH TONAWANDA
31	1	NIAG	HOOKEER DUREZ, PLANT SITE VIII, NORTH TONAWANDA
32	1	NIAG	HOOKEER DUREZ, PLANT SITE IX, NORTH TONAWANDA
33	1	NIAG	HOOKEER DUREZ, PLANT SITE X, NORTH TONAWANDA
34	1	NIAG	HOOKEER DUREZ, PLANT SITE XI, NORTH TONAWANDA
35	1	NIAG	HOOKEER DUREZ, PLANT SITE XII, NORTH TONAWANDA
36	1	NIAG	HOOKEER DUREZ, PLANT SITE XIII, NORTH TONAWANDA
37	1	NIAG	HOOKEER DUREZ, PLANT SITE XIV, NORTH TONAWANDA
38	1	NIAG	HOOKEER NIAGARA FALLS, LOVE CANAL
39	1	NIAG	HOOKEER NIAGARA FALLS, HYDE PARK SITE
40	1	NIAG	HOOKEER NIAGARA FALLS, 102ND ST. SITE
41	1	NIAG	HOOKEER NIAGARA FALLS, S AND N AREAS
42	1	NIAG	HOOKEER NIAGARA FALLS, D AREA
43	1	NIAG	HOOKEER NIAGARA FALLS, F AREA
44	1	NIAG	HOOKEER NIAGARA FALLS, V-80 AREA
45	1	NIAG	HOOKEER NIAGARA FALLS, V-56 AREA
46	2	NIAG	HOOKEER NIAGARA FALLS, V-64 AREA
47	1	NIAG	HOOKEER NIAGARA FALLS, U AREA
48	2	NIAG	HOOKEER NIAGARA FALLS, W-107 AREA
49	1	NIAG	HOOKEER NIAGARA FALLS, BLDGS. D-11 AND D-21
50	3	NIAG	NATIONAL GRINDING WHEEL, WALCK ROAD, NORTH TONAWANDA
51	1	NIAG	NL INDUSTRIES, HYDE PARK BLVD., NIAGARA FALLS
52	2	NIAG	NORTON LABORATORIES, MILL STREET, LOCKPORT
53	2	NIAG	NOURY CHEMICAL, BEHIND BLDG. 20, ROUTE 78, BURT
54	2	NIAG	NOURY CHEMICAL, SLUDGE PIT BTWN BLDGS. 14 AND 19, RT. 78, BURT
55	2	NIAG	NOURY CHEMICAL, BEHIND BLDG. 20, RT. 78, BURT
56	1	NIAG	OLIN, 102ND STREET SITE, NIAGARA FALLS
57	2	NIAG	OLIN (SITE OF INDUST. WELDING CORP.), NIAGARA FALLS
58	2	NIAG	OLIN, PARKING LOT, BUFFALO AVENUE, NIAGARA FALLS
59	2	NIAG	OLIN, BUFFALO AVENUE, NIAGARA FALLS
60	2	NIAG	ROBLIN STEEL, EAST AVENUE, NORTH TONAWANDA
61	2	NIAG	STMONDS STEEL, OHIO STREET, LOCKPORT



48	2	NIAG	HOOKER NIAGARA FALLS, W/IV, AKRON
49	1	NIAG	HOOKER NIAGARA FALLS, BLDGS. D-11 AND D-21
50	3	NIAG	NATIONAL GRINDING WHEEL, WALCK ROAD, NORTH TONAWANDA
51	1	NIAG	NL INDUSTRIES, HYDE PARK BLVD., NIAGARA FALLS
52	2	NIAG	NORTON LABORATORIES, MILL STREET, LOCKPORT
53	2	NIAG	NOURY CHEMICAL, BEHIND BLDG. 20, ROUTE 78, BURT
54	2	NIAG	NOURY CHEMICAL, SLUDGE PIT BTWN BLDGS. 14 AND 19, RT. 78, BURT
55	2	NIAG	NOURY CHEMICAL, BEHIND BLDG. 20, RT. 78, BURT
56	1	NIAG	OLIN, 102ND STREET SITE, NIAGARA FALLS
57	2	NIAG	OLIN (SITE OF INDUST. WELDING CORP.), NIAGARA FALLS
58	2	NIAG	OLIN, PARKING LOT, BUFFALO AVENUE, NIAGARA FALLS
59	2	NIAG	OLIN, BUFFALO AVENUE, NIAGARA FALLS
60	2	NIAG	ROBLIN STEEL, EAST AVENUE, NORTH TONAWANDA
✓ 61	2	NIAG	SIMONDS STEEL, OHIO STREET, LOCKPORT
62	2	NIAG	STAUFFER CHEMICAL, UPPER MTN RD, LEWISTON
63	2	NIAG	STAUFFER CHEMICAL, ARTPARK, LEWISTON
64	3	NIAG	UNION CARBIDE CARBON PRODUCTS, HYDE PARK BLVD., NIAGARA FALLS
65	2	NIAG	VAN DE MARK CHEMICAL, NORTH TRANSIT ROAD, LOCKPORT
✓ 66	2	NIAG	VARCUM CHEMICAL, PACKARD ROAD, NIAGARA FALLS
67	1	NIAG	FRONTIER CHEMICAL, PENDLETON
68	2	NIAG	GRATWICK PARK, RIVER ROAD, NORTH TONAWANDA
69	3	NIAG	J. T. SALVAGE, BALMER ROAD, YOUNGSTOWN
70	3	NIAG	TOWN OF HARTLAND, RYAN ROAD, HARTLAND
71	2	NIAG	HARVEY NEWMAN, SHAWNEE ROAD, WHEATFIELD
72	2	NIAG	HOLIDAY PARK, WALCK ROAD, NORTH TONAWANDA
73	3	NIAG	LASALLE EXPRESSWAY, NIAGARA FALLS
74	2	NIAG	TOWN OF LEWISTON, HAROLD AND FLETCHER ROADS, LEWISTON
✓ 75	2	NIAG	CITY OF LOCKPORT, OAKHURST ROAD, LOCKPORT ✓
76	2	NIAG	LYNCH PARK, WILLIAMS AND RIVER ROADS, WHEATFIELD
77	2	NIAG	MODERN DISPOSAL SERVICES, MODEL CITY ROAD, MODEL CITY
78	*	NIAG	NEWCO WASTE SYSTEMS, NIAGARA FALLS
79	3	NIAG	N. Y. S. POWER AUTHORITY, UPPER MTN. ROAD, LEWISTON
✓ 80	2	NIAG	NIAGARA CO. REFUSE DISPOSAL, RICHFIELD ST., LOCKPORT ✓
81	1	NIAG	NIAGARA CO. REFUSE DISPOSAL, WITMER ROAD, WHEATFIELD
82	2	NIAG	ADAMS GENERATING PLANT, 113TH STREET, NIAGARA FALLS
83	3	NIAG	BUFFALO AVENUE, 52ND TO 60TH STREETS, NIAGARA FALLS
84	2	NIAG	CAYUGA ISLAND, NIAGARA FALLS
85	3	NIAG	GRIFFON PARK, NIAGARA FALLS
86	2	NIAG	HYDRAULIC CANAL, NIAGARA FALLS
87	3	NIAG	NEW ROAD, NIAGARA FALLS
88	2	NIAG	64TH STREET, NIAGARA FALLS
89	3	NIAG	WHIRLPOOL SITE, NIAGARA FALLS
90	3	NIAG	WITMER ROAD, NIAGARA FALLS
91	3	NIAG	TOWN OF NIAGARA, LOCKPORT ROAD
92	2	NIAG	NIAGARA FRONTIER TRANSPORTATION AUTHORITY, WHEATFIELD
93	2	NIAG	NASH ROAD SITE, WHEATFIELD
94	3	NIAG	NIAGARA RIVER SITE, RIVER ROAD, WHEATFIELD
95	3	NIAG	OLD CREEK BED, PORTER AND TUSCARORA ROADS, NIAGARA FALLS
96	2	NIAG	ROBERT MOSES PARKWAY, NIAGARA FALLS
97	2	NIAG	ROSS STEEL, PINE AVE, NIAGARA FALLS
98	3	NIAG	TOWN OF ROYALTON, GRISWOLD ROAD, ROYALTON
99	*	NIAG	SCA, PORTER
100	3	NIAG	SILBERGELD JUNK YARD, 14TH STREET, NIAGARA FALLS
101	3	NIAG	WALMORE ROAD, WHEATFIELD
102	2	NIAG	WILSON-CAMBRIA-NEWFANE SITE, CHESTNUT STREET, WILSON
103	3	ERIE	R. P. ADAMS COMPANY, EAST PARK DRIVE, BUFFALO
104	2	ERIE	ALLIED CHEMICAL PLASTICS, RIVER ROAD, TONAWANDA
105	2	ERIE	ALLIED CHEMICAL PLASTICS, RIVER ROAD, TONAWANDA
106	2	ERIE	ALLIED CHEMICAL PLASTICS, RIVER ROAD, TONAWANDA
107	3	ERIE	ALLIED CHEMICAL, IND. CHEM. DIV., LEE STREET, BUFFALO
108	2	ERIE	ALLIED CHEMICAL, (TONAWANDA COKE), RIVER ROAD, TONAWANDA
109	2	ERIE	ALLIED CHEMICAL, (TONAWANDA COKE), RIVER ROAD, TONAWANDA
110	2	ERIE	ALLIED CHEMICAL, (TONAWANDA COKE), RIVER ROAD, TONAWANDA
111	2	ERIE	ALUMINUM MATCH PLATE, MILITARY ROAD, KENMORE
112	3	ERIE	AMAX SPECIALTY METALS, HAKE ROAD, AKRON
113	3	ERIE	THE ANACONDA COMPANY, MILITARY ROAD, BUFFALO
114	2	ERIE	ASHLAND PETROLEUM, RIVER ROAD, TONAWANDA
115	3	ERIE	ASHLAND PETROLEUM, RIVER ROAD, TONAWANDA
116	3	ERIE	ASHLAND PETROLEUM, RIVER ROAD, TONAWANDA
117	2	ERIE	ASHLAND PETROLEUM, RIVER RD., TONAWANDA
118	2	ERIE	BETHLEHEM STEEL, LACKAWANNA
119	2	ERIE	WISONITE, MILITARY ROAD, TONAWANDA
120	2	ERIE	BUFFALO COLOR CORP., SOUTH PARK AVENUE, BUFFALO

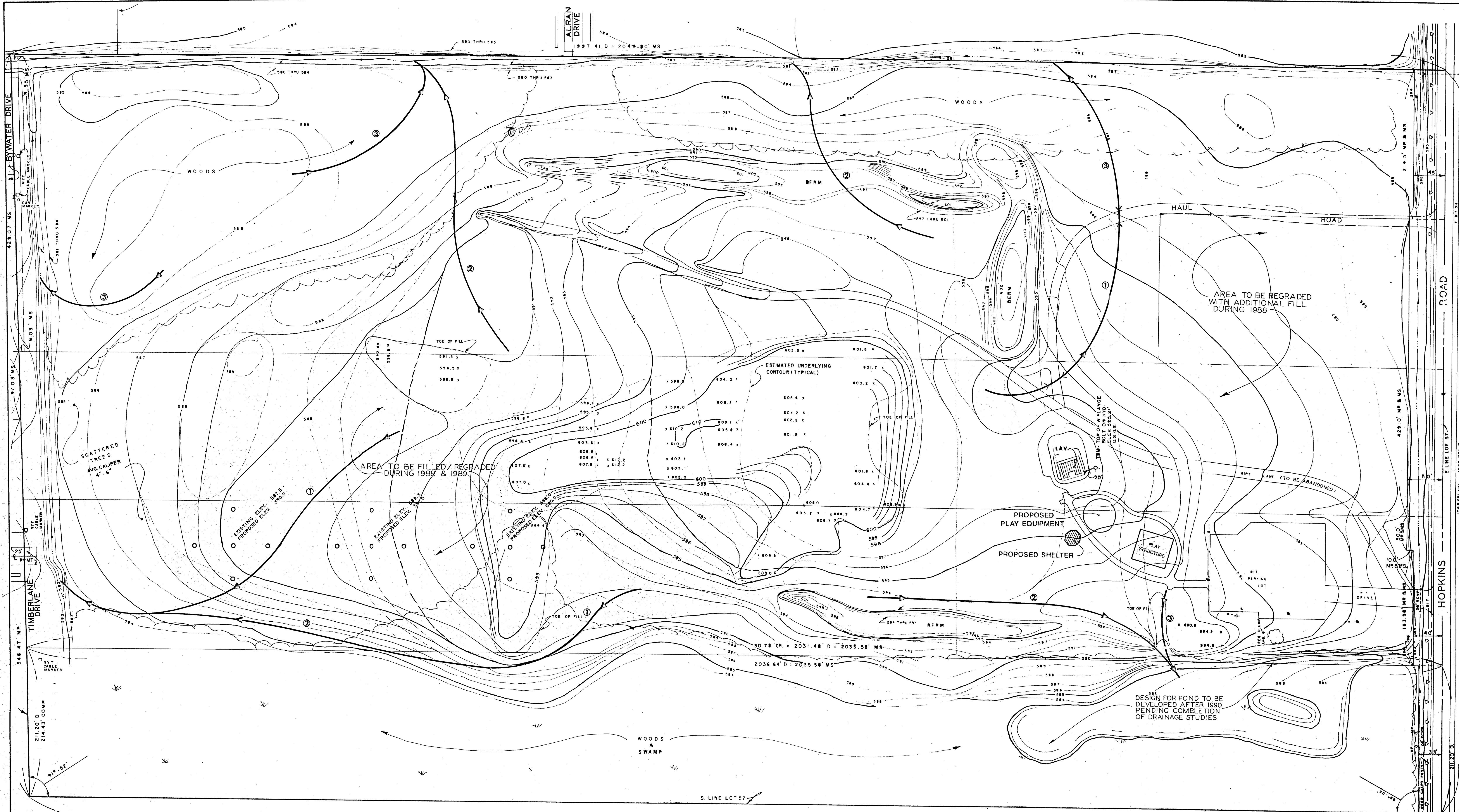



SCALE: 1"=60'

- EXISTING CONTOURS
- SOIL SAMPLING POINT
- GRID LOCATION

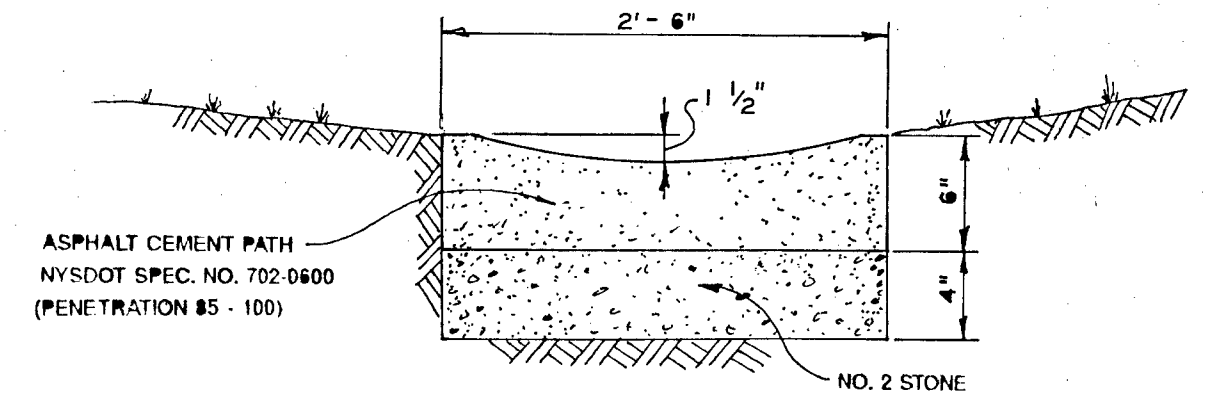
<b>TOWN OF AMHERST</b> ERIE CO., N. Y. ENGINEERING DEPARTMENT ROLAND DOAN, JR., P. E., TOWN ENGINEER			
<b>GREAT BAEHE CONSERVATION SITE</b> EXISTING TOPOGRAPHY AND SOIL SAMPLING PLAN			
MADE BY	J. PETRIE	JOB NO.	84-69
APPROVED		DWG. NO.	
DATE	4-18-88	SHEET	2 OF 3





  
 SCALE: 1" = 60'

- SOIL SAMPLE LOCATION
- - - - - EXISTING CONTOURS
- PROPOSED CONTOURS
- PROP. ASPHALT PATH - DRAINAGE SWALE
- ① PHASE 1 1988-89
- ② PHASE 2 1989-90
- ③ PHASE 3 1990-91
- FILL AREAS



**DETAIL**  
**ASPHALT PATH - DRAINAGE SWALE**

<b>TOWN OF AMHERST</b> ERIE CO., N. Y. ENGINEERING DEPARTMENT ROLAND DOAN, JR., P. E., TOWN ENGINEER			
<b>GREAT BAEHRE CONSERVATION SITE</b> FINAL GRADING AND DRAINAGE PLAN			
MADE BY	J. PETRIE	JOB NO.	84-69
APPROVED		DWG. NO.	
DATE	4-18-88	SHEET	3 OF 3



ALRAN DR.



BYWATER DR.

TIMBERLANE DR.

EXISTING WOODS

WILDFLOWER MEADOW

SLED HILL

WILDFLOWER MEADOW

TOUCH GARDENS

BICYCLE PATH

PLAYFIELDS

PAVED WALK

EXISTING HYDRANT

RESTROOMS

INTEGRATED PLAY AREA

SHELTER

OBSERVATION TOWER

PAVED PARKING AREA

EX. UTILITY POLE

SIGN

PICNIC AREA

OVERLOOK

FUTURE POND

WOODED WETLANDS

BOARDWALK

HOPKINS ROAD

# GREAT BAEHRE CONSERVATION SITE CONCEPT PLAN

4 - 28 - 88

SHEET NO. 1 OF 3