The electronic version of this file/report should have the file name:

Type of document.Spill Number.Year-Month.File *Year-Year* or Report name.pdf

letter._____._____-_____.File spillfile___.pdf

report.HW915018_____.1982-01-15.PRELIMINARY ASSESMENT (SITE 2).pdf

Project Site numbers will be proceeded by the following:

Municipal Brownfields - b
Superfund - hw
Spills - sp
ERP - e
VCP - v
BCP - c

non-releasable - put .nf.pdf
Example: letter.sp9875693.1998-01.Filespillfile.nf.pdf

915018 DUNLOP TIRE 915018A Entered

02-8710-96-PA
REV. NO. 0

PRELIMINARY ASSESSMENT
DUNLOP SITE 2

PREPARED UNDER

TECHNICAL DIRECTIVE DOCUMENT NO. 02-8710-96
CONTRACT NO. 68-01-7346

FOR THE

ENVIRONMENTAL SERVICES DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

DECEMBER 7, 1987

NUS CORPORATION
SUPERFUND DIVISION

SUBMITTED BY:

Donna J. Restivo

DONNA RESTIVO
PROJECT MANAGER

REVIEWED/APPROVED BY:

Ronald M. Naman

RONALD M. NAMAN
FIT OFFICE MANAGER

NUS CORPORATION

POTENTIAL HAZARDOUS WASTE SITE

PRELIMINARY ASSESSMENT

02-8710-96-PA
Rev. No. 0

Dunlop Site 2
Site Name

NYD980211338
EPA Site ID Number

Sheridan Drive and River Road
Tonawanda, New York
Address

02-8710-96
TDD Number

Date of Site Visit: November 9, 1987

SITE DESCRIPTION

Dunlop Site 2 is an active area of disposal first used by the Dunlop Tire and Rubber Corporation in 1923. The site is approximately 3 acres and is located on River Road in Tonawanda, Erie County, New York. It is an open dump that received waste oils, cinders, wood, solvents, building rubble, and rubber products. The Bureau of Toxic Substance Assessment lists 1,1,1-trichloroethane, trichloroethene, zinc oxide, arsenic trioxide, chromium (III) oxide, cadmium oxide, lead monoxide, N-phenyl-2-naphthylamine, and diphenylamine as contaminants of concern for this site. The wastes are uncontained; therefore, migration to surface water is possible. The Niagara River is approximately 0.25 mile west of the site and is used for boating, fishing, and swimming. This section of the river is a significant area for fisheries. Direct contact and contamination of the food chain are possible. Groundwater and surface water in the area are not used for drinking purposes.

PRIORITY FOR FURTHER ACTION: High __ Medium __ No Further Action X

RECOMMENDATIONS

No further action is recommended for this site. Groundwater and surface water are not used for drinking purposes in the area. Dunlop is working in cooperation with the New York State Department of Environmental Conservation (NYSDEC) in ongoing investigations of the site. The site is being considered for remediation.

Prepared by: Donna Restivo
of NUS Corporation

Date: 12/07/87

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980211338

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Dunlop Site 2	Sheridan Drive and River Road

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Tonawanda	NY	14150	Erie	029	33

09 COORDINATES

LATITUDE	LONGITUDE
42°58'28".N	078°55'06".W

10 DIRECTIONS TO SITE (Starting from nearest public road)

Take Route 190 to Sheridan Avenue (Rte. 325) West. Follow Sheridan Avenue to River Road. Take a right; the site is on the right.

III. RESPONSIBLE PARTIES

01 OWNER (if known)	02 STREET (Business, mailing, residential)
Dunlop Tire and Rubber Corp.	Sheridan Drive

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER	
Tonawanda	NY	14150	(716) 879-8200	

07 OPERATOR (if known and different from owner)	08 STREET (Business, mailing, residential)

09 CITY	04 STATE	11 ZIP CODE	12 TELEPHONE NUMBER	

13. TYPE OF OWNERSHIP (Check one)

x 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 103c) DATE RECEIVED: _____ (MONTH DAY YEAR) xC. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01. ON SITE INSPECTION

x YES DATE: 07/82 (MONTH DAY YEAR)

_ NO

BY (Check all that apply)

_ A. EPA _ B. EPA CONTRACTOR _ C. STATE _ D. OTHER CONTRACTOR

_ E. LOCAL HEALTH OFFICIAL x F. OTHER: United States Geological Survey (Specify)

CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)

x A. ACTIVE _ B. INACTIVE _ C. UNKNOWN

03 YEARS OF OPERATION

1923 (BEGINNING YEAR) / Still Active (ENDING YEAR) _ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Dunlop Site 2 received drummed and surface disposal of waste oils, cinders, wood, solvents, building rubble, and rubber products.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

There is a potential for groundwater, surface water, and air contamination. There is a potential for direct contact by workers on site as well as by public use of (See Attachment A)

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) x D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	08 TELEPHONE NUMBER
Diana Messina	U.S. EPA, Region 2, Edison, New Jersey	(201) 321-6776

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Donna Restivo	U S. EPA	NUS Corp., FIT 2	(201) 225-6160	12/07/87

ATTACHMENT A

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

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

surface water for fishing, boating, and swimming. A potential exists for damage to flora and fauna. There is also a potential for the contamination of the food chain.

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980211338

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES *(Check all that apply)*

- X A. SOLID
- _ B. POWDER, FINES
- _ C. SLUDGE
- _ D. OTHER _____ *(SPECIFY)*
- _ E. SLURRY
- X F. LIQUID
- _ G. GAS

02 WASTE QUANTITY AT SITE *(Measures of waste quantities must be independent)*

TONS 200/yr.
CUBIC YARDS _____
NO. OF DRUMS _____

03 WASTE CHARACTERISTICS *(Check all that apply)*

- X A. TOXIC
- _ B. CORROSIVE
- _ C RADIOACTIVE
- X D. PERSISTENT
- X E. SOLUBLE
- _ F. INFECTIOUS
- X G. FLAMMABLE
- _ H. IGNITABLE
- X I. HIGHLY VOLATILE
- _ J. EXPLOSIVE
- _ K. REACTIVE
- _ L. INCOMPATIBLE
- _ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE	Unknown		
SOL	SOLVENTS	Unknown		
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	Unknown		
IOC	INORGANIC CHEMICALS	Unknown		
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	Unknown	—	

IV. HAZARDOUS SUBSTANCES *(See Appendix for most frequently cited CAS Numbers)*

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
SOL	1,1,1-Trichloroethane	71-55-6	Open dump	Unknown	
SOL	Trichloroethene	79-01-6	Open dump	Unknown	
MES	Zinc Oxide	1314-13-2	Open dump	Unknown	
MES	Arsenic Trioxide	1327-53-3	Open dump	Unknown	
MES	Chromium (III) Oxide	1308-38-9	Open dump	Unknown	
MES	Cadmium Oxide	1306-19-0	Open dump	Unknown	
MES	Lead Monoxide	1317-36-8	Open dump	Unknown	
			See Attachment 8		

V. FEEDSTOCKS *(See Appendix for CAS Numbers)*

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

County of Erie, Department of Environment and Planning, Division of Environmental Control, Memorandum, June 19, 1979.
Bureau of Toxic Substance Assessment, Hazardous Waste Site Inspection Report for Dunlop Tire and Rubber, 06/05/85.
New York State Department of Environmental Conservation, Hazardous Waste Disposal Sites Report, April 15, 1980.
U.S. EPA, Preliminary Evaluation of Chemical Migration to Groundwater and the Niagara River from Selected Waste-Disposal Sites, March 1985.

ATTACHMENT B

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

IV. HAZARDOUS SUBSTANCES *(See Appendix for most frequently cited CAS Numbers)*

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OCC	N-Phenyl-	135-88-6	Open dump	Unknown	
	2-naphthylamine				
OCC	Diphenylamine	122-39-4	Open dump	Unknown	

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D980211338

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 x A. GROUNDWATER CONTAMINATION
02 _ OBSERVED (DATE: _____) _ POTENTIAL x ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0
04 NARRATIVE DESCRIPTION

A Bureau of Toxic Substance Assessment Inspection Report indicated that the unconfined aquifer was contaminated with small concentrations of phenols, chloroform, 1,1,1-trichloroethane, and trichloroethene. However, groundwater is not used as a source of drinking water.

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

There is a potential for contamination of surface water due to material dumped on site. The Niagara River is approximately 0.25 mile from the site and is used for boating, swimming, fishing, and irrigation.

01 x C. CONTAMINATION OF AIR
02 _ OBSERVED (DATE: _____) x POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Approx. 140,000
04 NARRATIVE DESCRIPTION

There is a potential for contamination of air due to materials dumped on site in an open dump.

01 x D. FIRE/EXPLOSIVE CONDITIONS
02 _ OBSERVED (DATE: _____) x POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 1,612
04 NARRATIVE DESCRIPTION

There is a potential for fire/explosive conditions. Some of the materials alleged to be dumped on site are flammable.

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

There is a potential for direct contact by the workers on site as well as by the public in potentially contaminated surface water. The Niagara River is approximately 0.25 mile from the site and is used for boating, fishing, and swimming. Wastes on site are not accessible to the public; the site is completely fenced.

01 x F. CONTAMINATION OF SOIL
02 _ OBSERVED (DATE: _____) _ POTENTIAL x ALLEGED
03 AREA POTENTIALLY AFFECTED: 3 (Acres)
04 NARRATIVE DESCRIPTION

The site was once used as an open dump. It is alleged to contain waste oils, cinders, wood, solvents, building rubble, and rubber products.

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

There is no potential for drinking water contamination. Groundwater is not used for drinking purposes and surface water intakes are greater than 3 miles from the site.

01 x H. WORKER EXPOSURE/INJURY
02 _ OBSERVED (DATE: _____) x POTENTIAL _ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: 15
04 NARRATIVE DESCRIPTION

There is a potential for worker exposure/injury as the site is active.

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

There is a potential for population exposure/injury from materials dumped on site. Direct contact may occur in potentially contaminated surface water by swimming, boating, and/or fishing in the Niagara River, approximately 0.25 mile away. Air contamination may occur from materials dumped on site in an open dump. Some of the materials alleged to be dumped on site are flammable; therefore, there is a potential for fire/explosive conditions.

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

I. IDENTIFICATION	
01 STATE: NY	02 SITE NUMBER: D980211338

II. HAZARDOUS CONDITIONS AND INCIDENTS *(CONTINUED)*

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

Damage to flora may occur along the contaminant migration path and/or in the Niagara River.

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

A potential for damage to fauna does exist due to materials dumped on site. Materials may enter the Niagara River, approximately 0.25 mile west of the site, and affect aquatic life.

01 x L. CONTAMINATION OF FOOD CHAIN — 02 x OBSERVED (DATE: ____) — x POTENTIAL — _ ALLEGED
04 NARRATIVE DESCRIPTION

There is a potential for contamination of the food chain, if surface water becomes contaminated. The Niagara River is approximately 0.25 mile from the site and is a significant area for fisheries.

01 x M. UNSTABLE CONTAINMENT OF WASTES — 02 x OBSERVED (DATE: 06/05/85) — _ POTENTIAL — _ ALLEGED
(Spills, Runoff, Standing liquids, Leaking drums)
03 POPULATION POTENTIALLY AFFECTED: 1,612
04 NARRATIVE DESCRIPTION

The site was an open dump and there are exposed patches/piles of solid waste.

01 x N. DAMAGE TO OFF-SITE PROPERTY — 02 _ OBSERVED (DATE: _____) — x POTENTIAL — _ ALLEGED
04 NARRATIVE DESCRIPTION

There is potential for damage to off-site property. Contaminants could migrate off site through surface runoff.

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

There is potential for the contamination of the facility's storm sewer network.

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

There is no potential for illegal/unauthorized dumping. Dunlop is an active facility and entry is restricted.

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

There are no other known, potential, or alleged hazards.

III. TOTAL POPULATION POTENTIALLY AFFECTED: Approximately 140,000

IV. COMMENTS

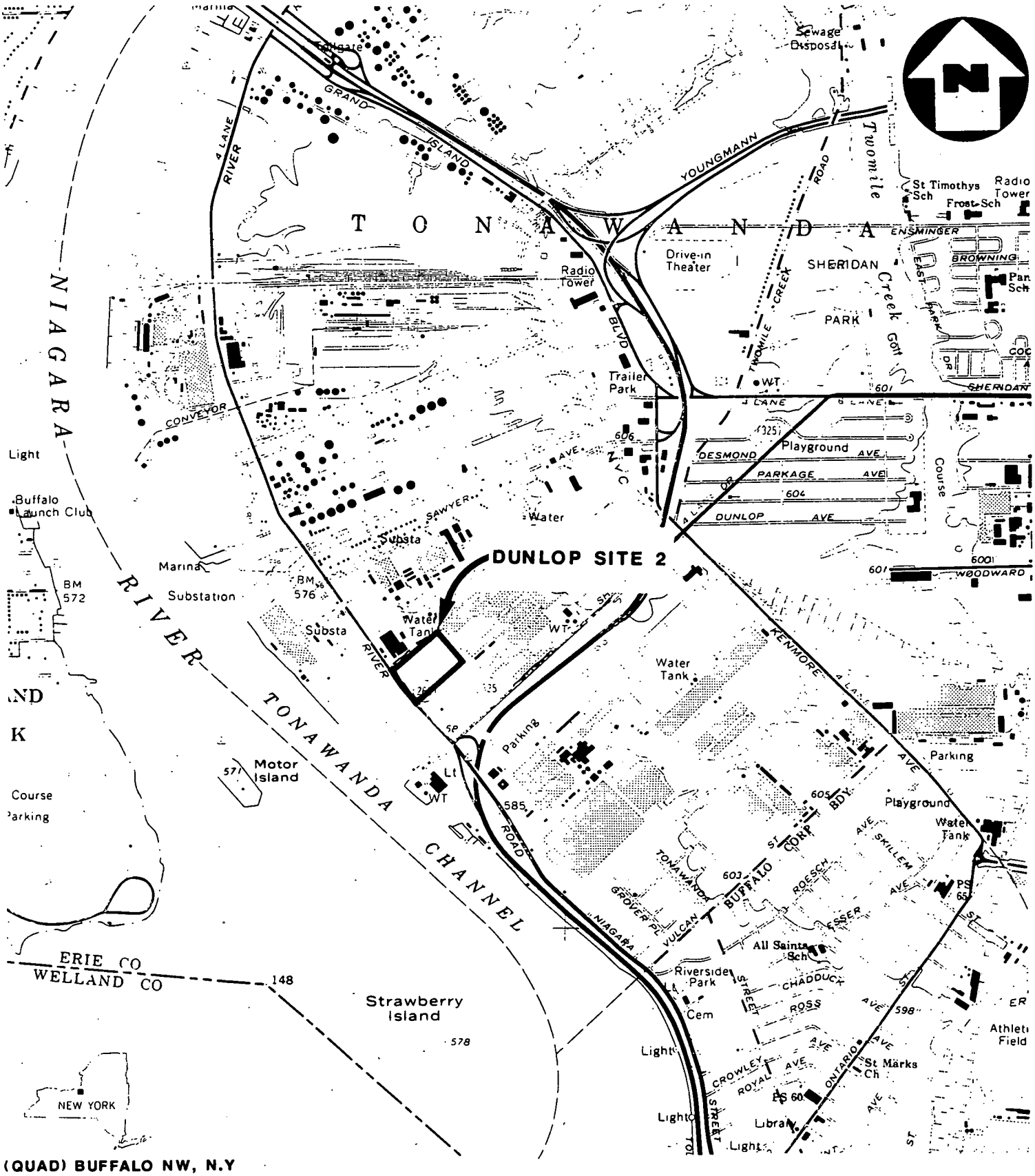
None

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

Bureau of Toxic Substance Assessment, Hazardous Waste Site Inspection Report for Dunlop Tire and Rubber, 06/05/85.
Erie and Niagara Counties Regional Planning Board, Water Quality Management Program, Report 4 - Environmental Inventory, October 1978.
General Sciences Corporation, Graphical Exposure Modelling Systems (GEMS). Landover, Maryland, 1986.
NUS Corporation off-site reconnaissance, November 9, 1987.
Telecon Note: Conversation between Ron Kokzaja, Erie County Health Department, and Dennis Sutton, NUS Corporation, March 6, 1986.

APPENDIX A

MAPS AND PHOTOGRAPHS



(QUAD) BUFFALO NW, N.Y

FIGURE 1

SITE LOCATION MAP

DUNLOP SITE 2 ,TONAWANDA, N.Y.

SCALE: 1"= 2000'

NUS CORPORATION

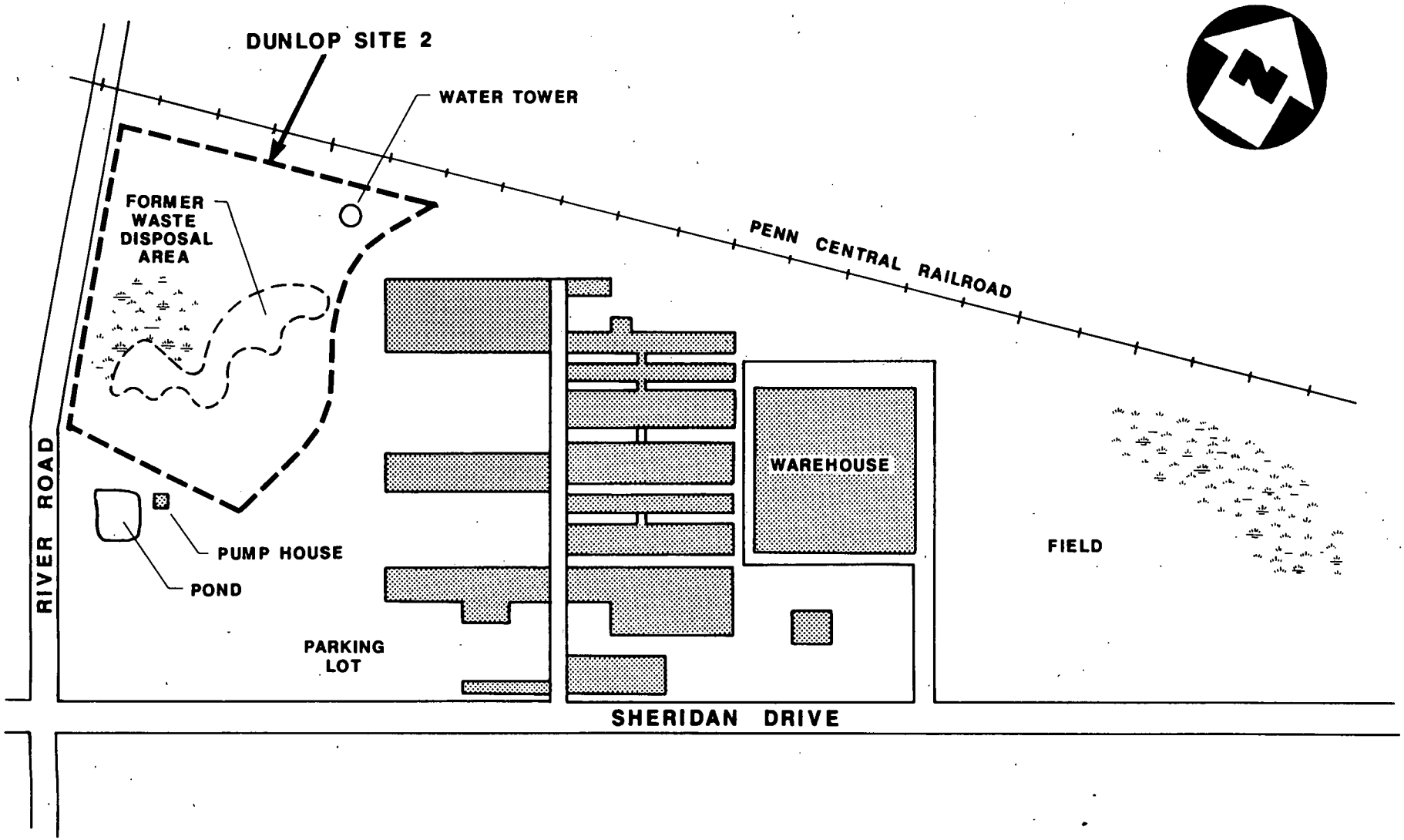


FIGURE 2

SITE MAP

DUNLOP SITE 2, TONAWANDA, N.Y.

(NOT TO SCALE)

NUS CORPORATION

02-8710-96-PA
Rev. No. 0

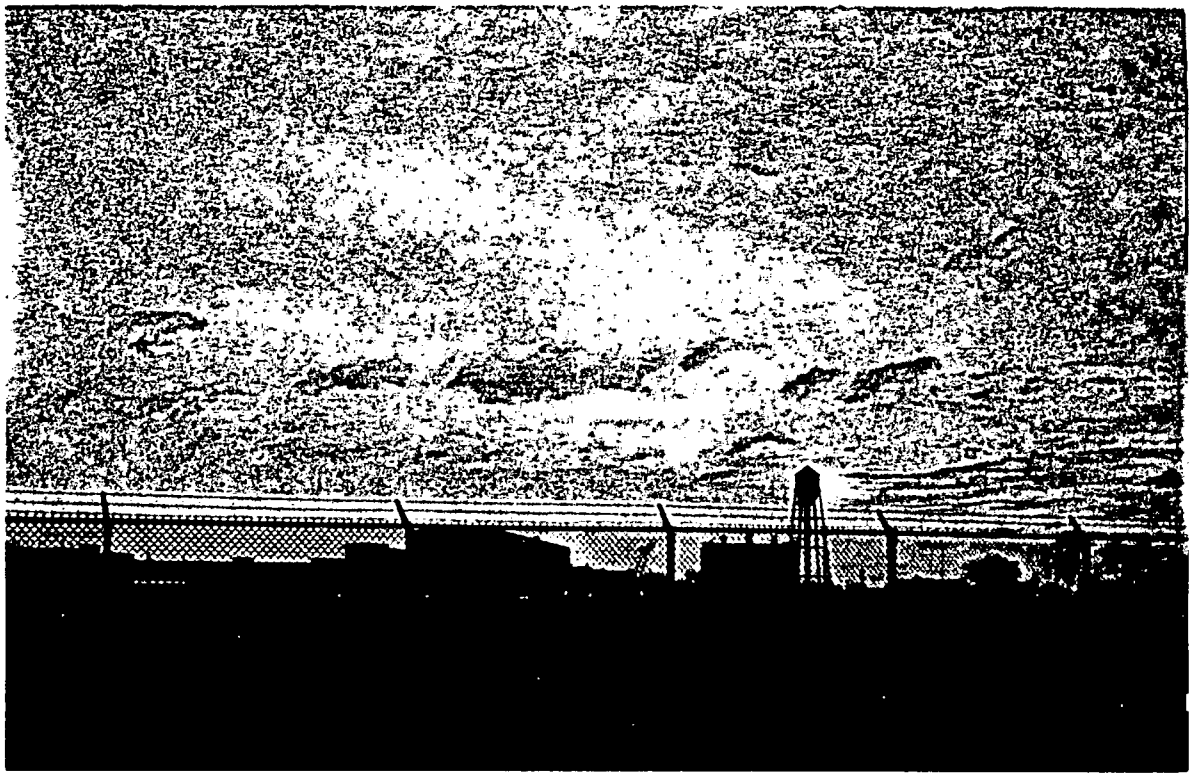
DUNLOP SITE 2
TONAWANDA, NEW YORK
TDD NO. 02-8710-96
NOVEMBER 9, 1987

PHOTOGRAPH LOG

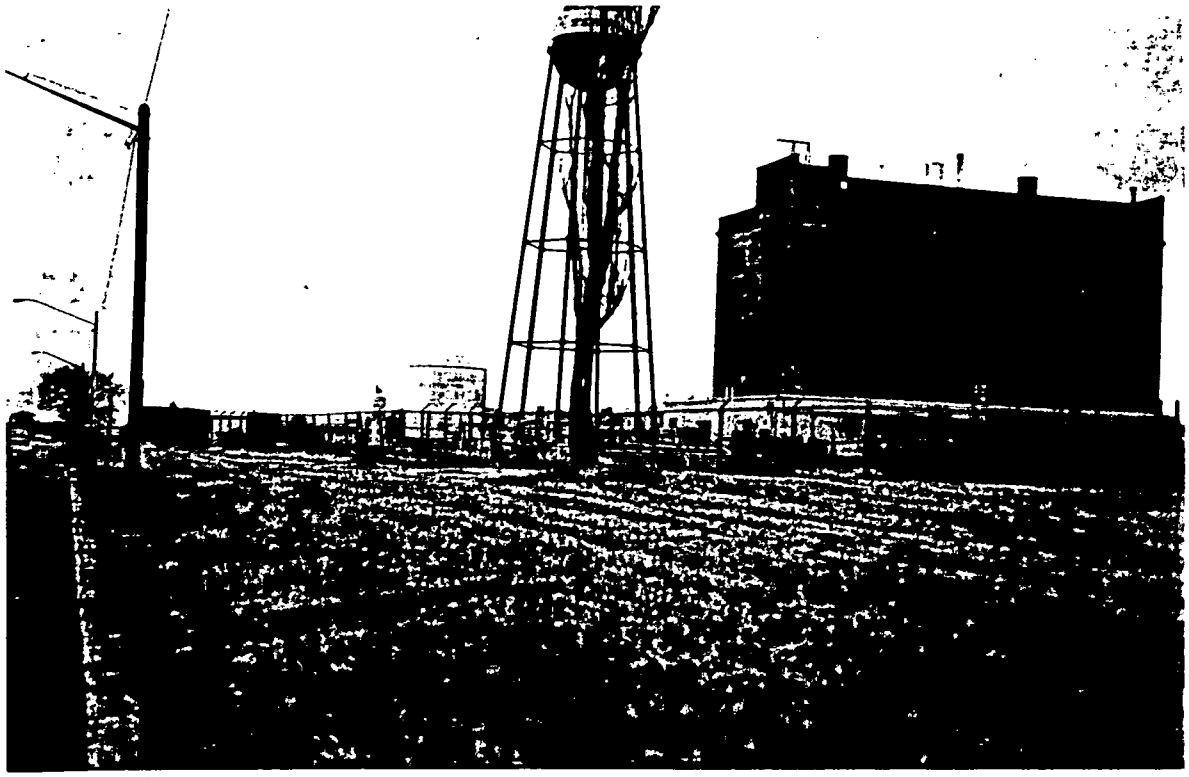
DUNLOP SITE 2
TONAWANDA, NEW YORK
02-8710-96
NOVEMBER 9, 1987

PHOTOGRAPH INDEX

Photo Number	Description	Time
1P-9	View off River Road looking east at the Dunlop property. Photographer: Donna Restivo	1100
1P-10	View off Sheridan Drive looking northwest at the Dunlop facility. Photographer: Robert Nies.	1107
1P-12	View off River Road looking southeast at the discharge pond. Photographer: Donna Restivo.	1115



1P-9 November 9, 1987 1100
View off River Road looking east at the Dunlop property.
Photographer: Donna Restivo.



1P-10 November 9, 1987 1107
View off Sheridan Drive looking northwest at the Dunlop facility.
Photographer: Robert Nies.

DUNLOP SITE 2, TONAWANDA, NEW YORK

1P-12 November 9, 1987 1115
View off River Road looking southeast at the discharge pond. Photographer: Donna Restivo.

APPENDIX B

BACKGROUND INFORMATION

PRELIMINARY ASSESSMENT
OFF SITE RECONNAISSANCE
INFORMATION REPORTING FORM

Date: 11/9/87

Site Name: Dunlop Site 2 TDD: 02-8710-96

Site Address: Sheridan Drive and River Rd.
Street, Box, etc.

Tonawanda
Town

Erie
County

New York
State

NUS Personnel:

Name	Discipline
Bob Nies	
DF 11/5/87 ~~Gerry Gilliland~~	Geologist
Donna Restivo	Toxicologist

Weather Conditions (clear, cloudy, rain, snow, etc.):
Slightly Cloudy

Estimated wind direction and wind speed: 0-2 mph

Estimated temperature: 40°-45°

Signature: Robert F. Nies Date: 11/9/87

Countersigned: Donna J. Restivo Date: 11/9/87

PRELIMINARY ASSESSMENT

INFORMATION REPORTING FORM

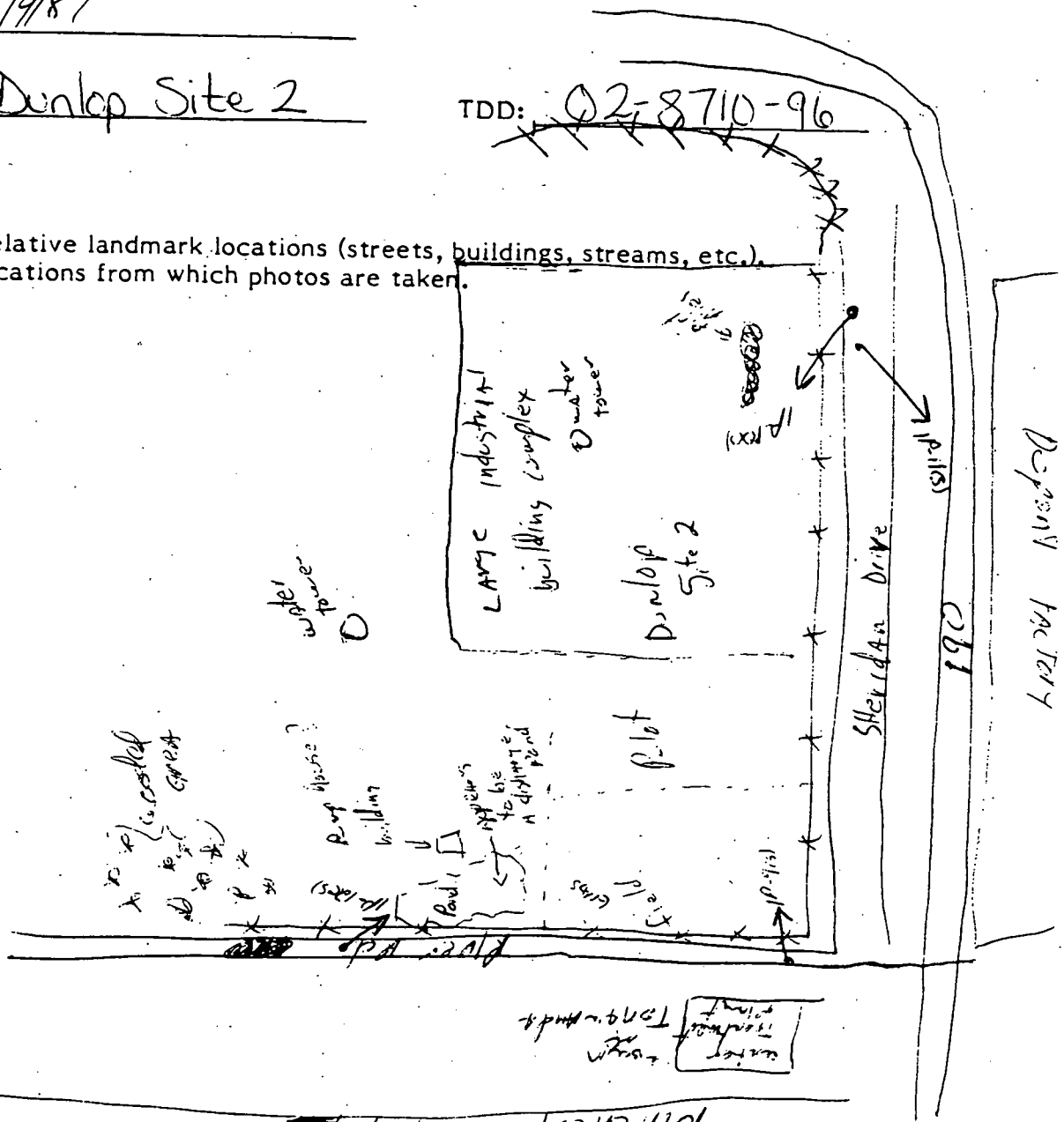
Date: 11/9/87

Site Name: Dunlop Site 2

TDD: 02-8710-96

Site Sketch:

Indicate relative landmark locations (streets, buildings, streams, etc.). Provide locations from which photos are taken.



Signature: Robert D. Nunn Date: 11/9/87

Countersigned: Donna J. Restivo Date: 11/9/87

PRELIMINARY ASSESSMENT

INFORMATION REPORTING FORM

Date: 11/9/87

Site Name: Dunlop Site 2 TDD: 02-8710-96

Notes (Periodically indicate time of entries in military time):

1058 - arrive on site
The Dunlop property is an operating facility located at the corner of Sheridan & Niagara Rd. There is a pond (discharge pond?) at the west side of the site. The facility is active and is located in a industrial area. The Niagara River is just west of Niagara Rd. Dunlop & the Tonawanda water treatment plant are adjacent to the site. There are a number of P-lots and dwellings on-site. The Polymer Application Site is just north of Dunlop and the properties boarder each other.

Signature: Robert M. Nunes Date: 11/9/87

Countersignature: Donna J. Restuccio Date: 11/9/87

PRELIMINARY ASSESSMENT

INFORMATION REPORTING FORM

Date: _____

Site Name: Dunlop Site 2 TDD: 02-8710-96

Notes (Cont'd):

Attach additional sheets if necessary. Provide site name, TDD number, signature, and countersignature on each.

Signature: _____ Date: _____

Countersignature: _____ Date: _____

PRELIMINARY ASSESSMENT

INFORMATION REPORTING FORM

Date: 11/9/87

Site Name: Dunlop Site 2 TDD: 02-8710-96

Photolog:

Frame/Photo Number	Date	Time	Photographer	Description
1P-9(3)	11/9/87	1100	D.R.	view off of River Rd. looking east at Dunlop prop.
1P-10(3)		1107	B.N	view off Sheridan Dr. looking N. west at Dunlop facility
1P-11(3)		1110	D.R.	view off of Sheridan Dr. looking S. west at Dupont across the street from Dunlop.
1P-12(3)		1115	D.R	view off of River Rd looking South east at entrance road.

Attach additional sheets if necessary. Provide site name, TDD number, signature, and countersignature on each.

Signature: Robert R. Nunn Date: 11/9/87

Countersignature: Donna J. Restivo Date: 11/9/87

02-8601-38/NY16 02 8710 34

NUS CORPORATION — TELECON NOTE

CONTROL NO:	DATE:	TIME:
02-8511-21A	3/6/86	4:00 pm

DISTRIBUTION:

File: Land Reclamation
Magnus Co. Inc
N.L. Industries

FILE: Polymer Applications 02-8711-81

BETWEEN:	OF:	PHONE:
Ron Korzaja	Erie Co. Health Dept	(716) 846-7677

AND:

Dennis Sutton (NUS)

DISCUSSION:

Surface water intakes (Drinking water supply) for Erie Co. New York.

1) For Town of Cheektowaga - water supply comes from a) Sturgeon Point intake an Town of Tonawanda intake (see below) when demand is high.
2) For ~~City~~ of Buffalo - intake is in Lake Erie just outside Erie Basin Marina
3) For Town of Tonawanda - intake is in Niagara River near Strawberry Island
4) For City of Tonawanda - intake is in Niagara River on northern tip of Grand Island
5) Towns of Alden, Collins, North Collins, Holland and Springville supplies are from municiple groundwater wells

ACTION ITEMS:

according to Mr. Korzaja the USGS and ~~Dept State Dept~~ Dept of Environmental Planning published a report on a groundwater study in Erie Co. a Mr Todd Miller in the Ithica USGS may have more info on this.

water intakes may be located on USGS Topo maps

POLYMER APPLICATIONS. GEMS

DUNLOP SITE 2

Lat: 42°58'10"N Long: 78°55'23"W

Data List of Dataset: NYBS Number of Records = 6

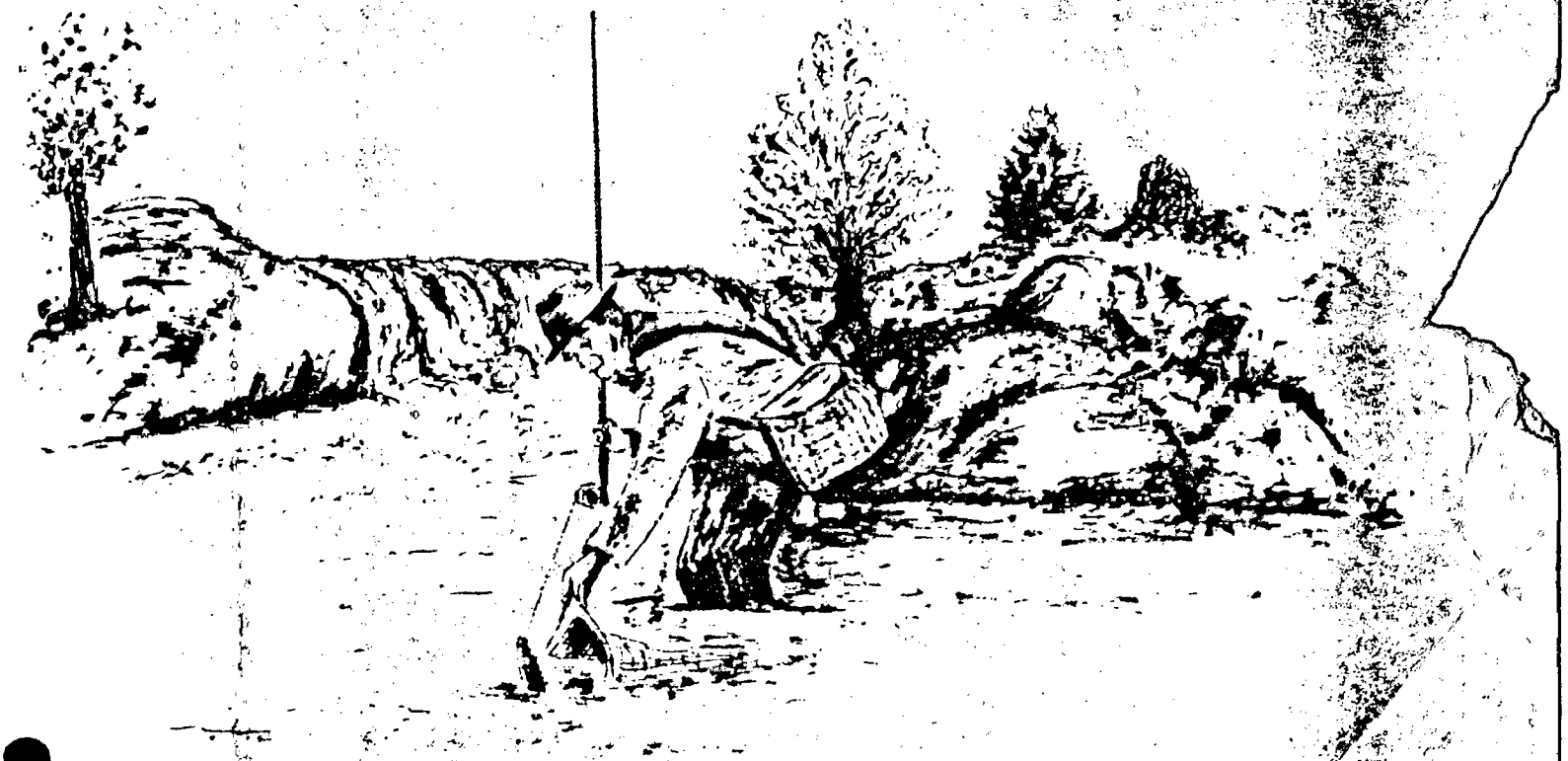
REC #	POP	HOUSE	DISTANCE	SECTOR
1	0	0	0.400000	1
2	97	36	0.810000	1
3	1612 1515	616	1.60000	1
4	20,281 18669	7042	3.20000	1
5	66,075 45794	17624	4.80000	1
6	138,799 72724	27828	6.40000	1

GENERAL SCIENCES CORPORATION, GRAPHICAL EXPOSURE MODELING SYSTEMS (GEMS). LANDOVER, MD. 1986

208 WATER QUALITY MANAGEMENT PROGRAM

Report 4

ENVIRONMENTAL INVENTORY



ERIE AND NIAGARA COUNTIES REGIONAL PLANNING BOARD

OCTOBER 1978

CHAPTER V
FISH AND WILDLIFE
(TASK 4.5)

The purpose of this Chapter is to review background information on fish and wildlife of the region in order to ascertain those fish and/or wildlife of importance to the region. The majority of this information was received from the New York State Department of Environmental Conservation (NYSDEC) offices in Albany, Avon, Buffalo and Olean, New York. Information regarding significant birdlife habitats was received from Dr. Robert F. Andrle of the Buffalo Museum of Science. In addition, endangered plantlife was identified from Floristics and Environmental Planning in Western New York and Adjacent Ontario by Richard H. Zander of the Buffalo Museum of Science.

From this information tabulations, and maps were made indicating populations and habitats of fish and wildlife. Included in this review are rare and/or endangered species associated with the Erie-Niagara region.

A. ENDANGERED FISH AND WILDLIFE

The fish and wildlife that are endangered in the Erie-Niagara region are identified in Federal Register publication on October 27, 1976 "Endangered and Threatened Wildlife and Plants" (Table 4-12). NYSDEC has reviewed this endangered species listing from the Federal Register and their comments are listed in this table.

In summary, of those endangered wildlife listed in the Federal Register, the Indiana Bat, Eskimo Curlew, the American and Artic Peregrine Falcons, Kirtlands Warbler and the Blue Pike are those endnagered wildlife that may be found in our region. NYSDEC has indicated that the Northern Bald Eagle and the Osprey are currently on the New York State endangered species listing. Sightings of this Bald Eagle and Osprey are not uncommon in Western New York.

The locations of these endangered species could not be mapped due to the variability of their sightings or recordings.

The region abounds with other fish and wildlife providing both ecological value and sport for those people both living in and out of our area.

B. FISHLIFE OF IMPORTANCE

A map of fishery recources has been prepared for the region (Figure 4-47). This map describes those waters that are used for spawning, salmon, trout, warmwater and coldwater fisheries at the primary of secondary level of activity. Primary and secondary fisheries are defined as follows:

- Primary Fishery - has a greater variety of game fish and more large game fish.

- Secondary Fishery - has a smaller variety of game fish and fewer large game fish.

The significant fishery resources of this two-county area are found in Lake Erie and Ontario, the Niagara River, several inland lakes and ponds, and in a variety of streams.

In describing this resource a general separation of major species is utilized, which assigns each of them to the broad categories of either Coldwater or Warmwater. These categories reflect the summer habitat requirements for the species involved. The coldwater species such as trout and salmon, require water temperatures not exceeding 70°F, whereas the warmwater species such as bass, walleye, musky, etc. can tolerate temperatures which on occasion reach the low 80°F.

A further breakdown based on angler preference, general availabilities, need for protection, and general utilization places the important species into the following four cateogires:

- Game Fish - Generally considered target species by most sports fishermen. With minor exception the harvest method allowed is by angling only involving conventional rod and reel. The species are generally vulnerable to over harvest by angling, so that it is essential to control the total harvest by establishment of closed seasons during spawning time, minimum size limits, and also daily creel limit.

  Species designated as game fish are: (a) Coldwater: brook, brown, rainbow and lake trout, coho and chinook salmon, (b) Warmwater: smallmouth and largemouth bass, muskellunge, northern pike, chain pickerel, walleye or yellow pike.

- Pan Fish - These are the readily available, easy to catch, good to eat species that support tremendous fishing pressure from all sectors of the angling public. They are usually so prolific that there is no need for regulations to prevent over-harvest. One of the panfishes, the yellow perch, is the most sought after species in Western New York.

  Other pan fish species are: pumpkinseed, sunfish, bluegill sunfish, black and white crappie, rock bass, bullhead and channel catfish, smelt. All except smelt are warmwater species.

- Coarse Fish - Species in this category are generally considered as less desirable than game or pan fish. A small segment of license anglers actively pursue these species. Most anglers have reservations concerning the palatability of the coarse fishes, although innovative recipes, including smoking, can render them very acceptable. In order to encourage harvest of and utilization of the valuable protein of these fishes, DEC has authority to permit their capture by use of spears, longbows, grappling hooks and snatch hooks.

  Principal coarse fish species in this area are: white and redhorse sucker, freshwater drum (sheephead) and carp. All of coarse fishes are considered warmwater species.

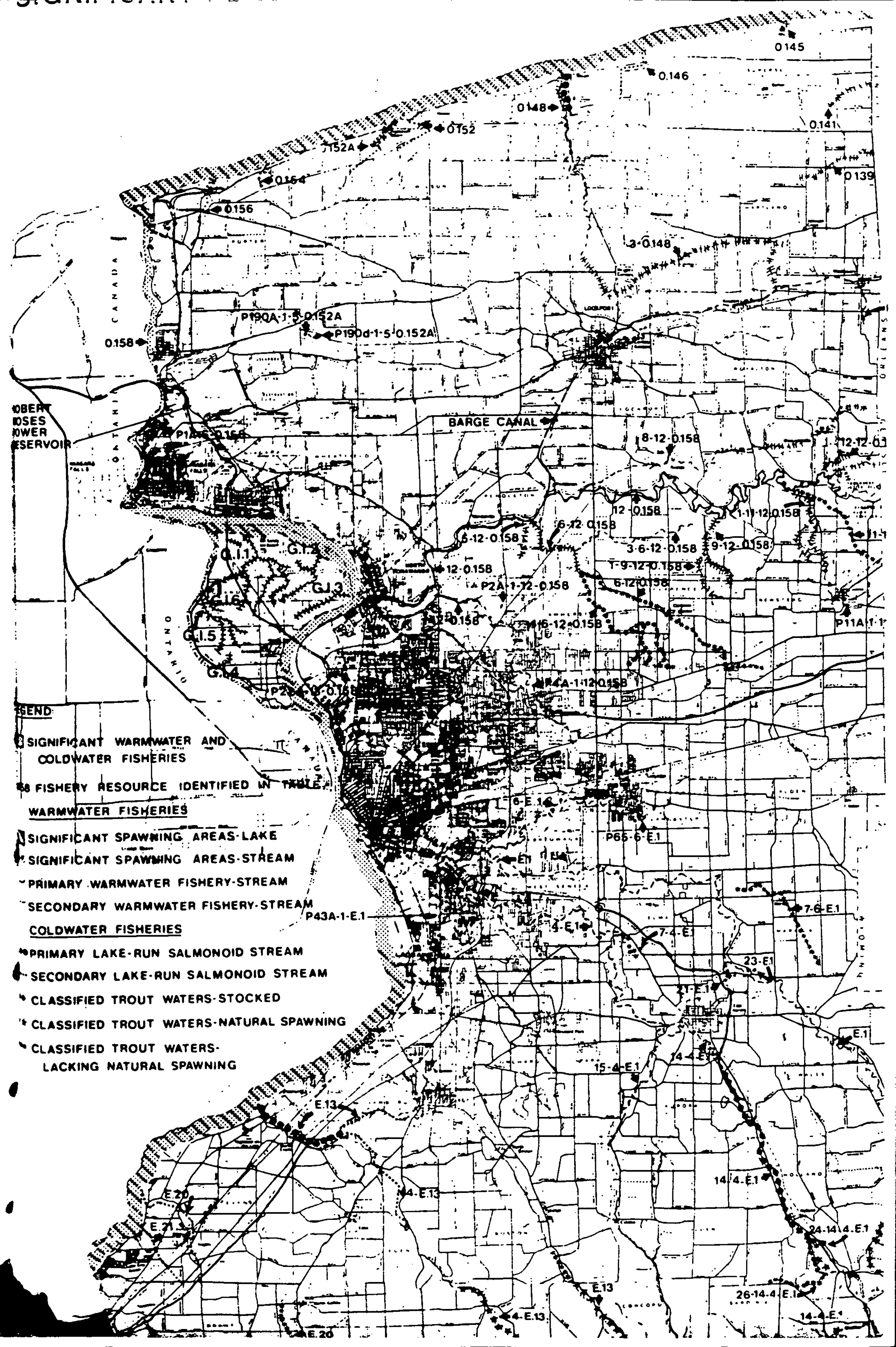
- Forage Fish - This category includes those species, generally small in size, whose major importance is to provide food for the more desirable game fish species. While the terminal predators such as muskellunge, northern pike, walleye, salmonids, etc. will of necessity consume smaller individuals of nearly any species for food, their general preference is for the forage fish species including: most species of minnows, darters, gizzard shad, smelt, alewife, etc.

A more detailed description of Figure 4-47 follows by county.

1. ERIE COUNTY WATER BODIES -

a) G.I. 1-6 Grand Island Tributaries - There are six identified streams on Grand Island. All are small and provide little fishing, but northern pike from the Niagara River are known to spawn in most or all of them. Preservation of this spawning habitat may be critical to the continuation of a significant northern pike population in the river.

b) 0.158 Upper Niagara River - An outstanding smallmouth bass fishery occurs in this portion of the river. Muskellunge are a second important species of warmwater gamefish. The muskellunge fishery is centered in the Strawberry, Motor and Beaver Island area. Largemouth bass, northern pike, and walleyes are also available in commendable numbers. Such pan fish as rock bass, perch, and bullhead are abundant. Important spawning areas for warmwater species are located at both the northern and southern tips of Grand Island. Other areas around the periphery of Grand Island are no doubt important; much valuable spawning and nursery habitat has been lost over the years through encroachment and filling of the littoral zone along the river. Pacific salmon and rainbow and brown trout are commonly caught in the fast water between the Peace Bridge and the International Railroad Bridge.



0.145
0.146
0.148
0.141
0.152
0.152A
0.139
0.154
0.156
3-0.148
CANADA
P190A-1-5-0.152A
P190d-1-5-0.152A
0.158
ROBERT MOSES POWER RESERVOIR
BARGE CANAL
8-12-0.158
12-12-0.1
12-0.158
1-11-12-0.158
6-12-0.158
5-12-0.158
3-6-12-0.158
9-12-0.158
12-0.158
1-9-12-0.158
6-12-0.158
P2A-1-12-0.158
G.1.1
G.1.2
G.1.3
G.1.6
G.1.5
G.1.4
ONTARIO
16-12-0.158
P11A-1-1
4A-1-12-0.158
LEGEND
SIGNIFICANT WARMWATER AND COLDWATER FISHERIES
FISHERY RESOURCE IDENTIFIED IN TABLE
WARMWATER FISHERIES
SIGNIFICANT SPAWNING AREAS-LAKE
SIGNIFICANT SPAWNING AREAS-STREAM
PRIMARY WARMWATER FISHERY-STREAM
SECONDARY WARMWATER FISHERY-STREAM
COLDWATER FISHERIES
PRIMARY LAKE-RUN SALMONOID STREAM
SECONDARY LAKE-RUN SALMONOID STREAM
CLASSIFIED TROUT WATERS-STOCKED
CLASSIFIED TROUT WATERS-NATURAL SPAWNING
CLASSIFIED TROUT WATERS-LACKING NATURAL SPAWNING
6-E.14
P65-6-E.1
E.1
P43A-1-E.1
4-E.1
7-6-E.1
7-4-E.1
23-E.1
21-E.1
E.1
14-4-E.1
15-4-E.1
E.13
14-4-E.1
4-E.13
E.20
E.21
24-14-4-E.1
E.13
26-14-4-E.1
4-E.13
14-4-E.1
E.20

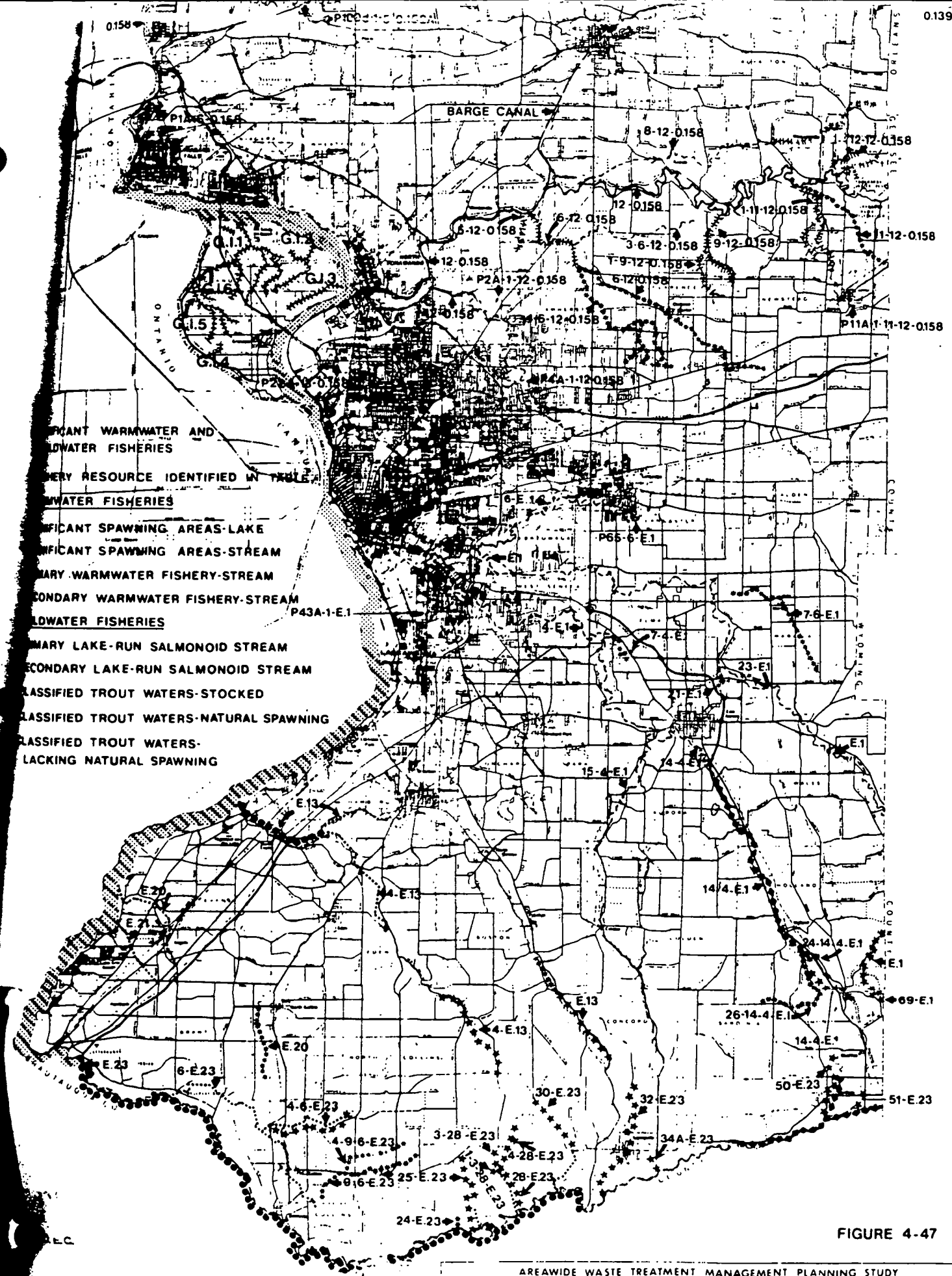


FIGURE 4-47

AREAWIDE WASTE TREATMENT MANAGEMENT PLANNING STUDY

ERIE AND NIAGARA COUNTIES REGIONAL PLANNING BOARD
3103 SHERIDAN DRIVE AMHERST N Y 14226

May, 1977

United States
Environmental Protection
Agency

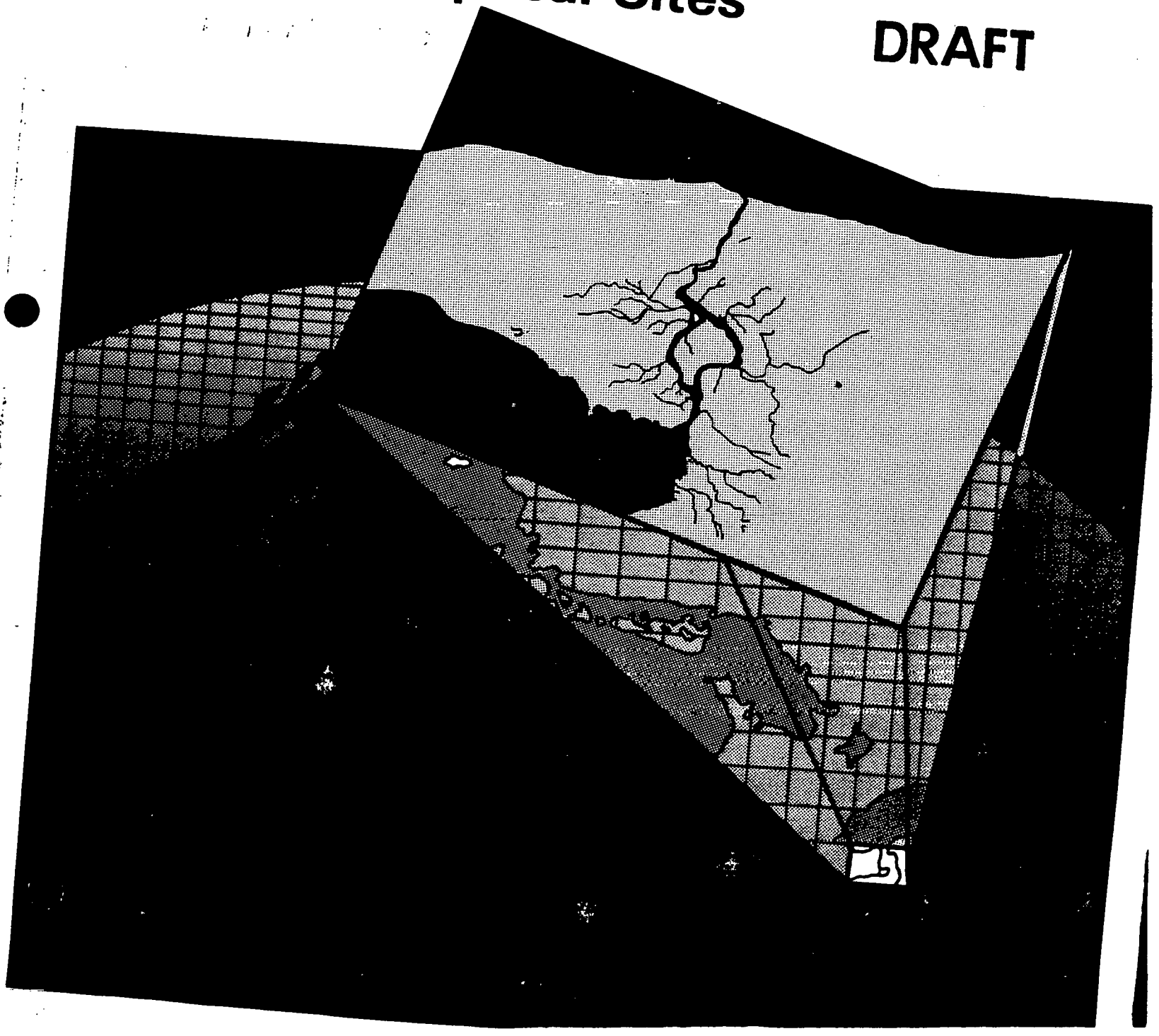
Great Lakes National
Program Office
536 South Clark Street
Chicago, Illinois 60605

EPA-905/4-85-001
March 1985

EPA

Preliminary Evaluation Of Chemical Migration To Groundwater and The Niagara River from Selected Waste-Disposal Sites

DRAFT



125, 126 and 127. DUNLOP TIRE & RUBBER COMPANY (USGS field reconnaissance) NYSDEC 915018a,b,c

General information and chemical-migration potential.--The Dunlop Tire and Rubber Company site, in the town of Tonawanda, consists of three disposal areas within the same property. Site 125 was a disposal site for construction and demolition material; site 126 received an unknown quantity of scrap rubber products, carbon black, sulfur, amines, and general refuse; and site 127 received coal cinders at a rate of 4,000 tons/yr during 1923-73.

The potential for vertical migration through the underlying clay to deeper units is probably limited. Additional sampling would be needed to evaluate horizontal migration of leachate from the sites. The potential for contaminant migration is indeterminable. The company has started a site investigation as a result of their chemical testing.

Geologic information.--The site consists of fill overlying a glacial lacustrine clay that overlies bedrock of Camillus Shale. The U.S. Geological Survey drilled four test borings on the site in 1982; the locations are shown in figure B-18. The geologic logs are on page 232.

Hydrologic information.--Ground water was encountered in the unconsolidated material above the unsaturated clay, which indicates a perched water table. The probable direction of ground-water flow is toward the Niagara River.

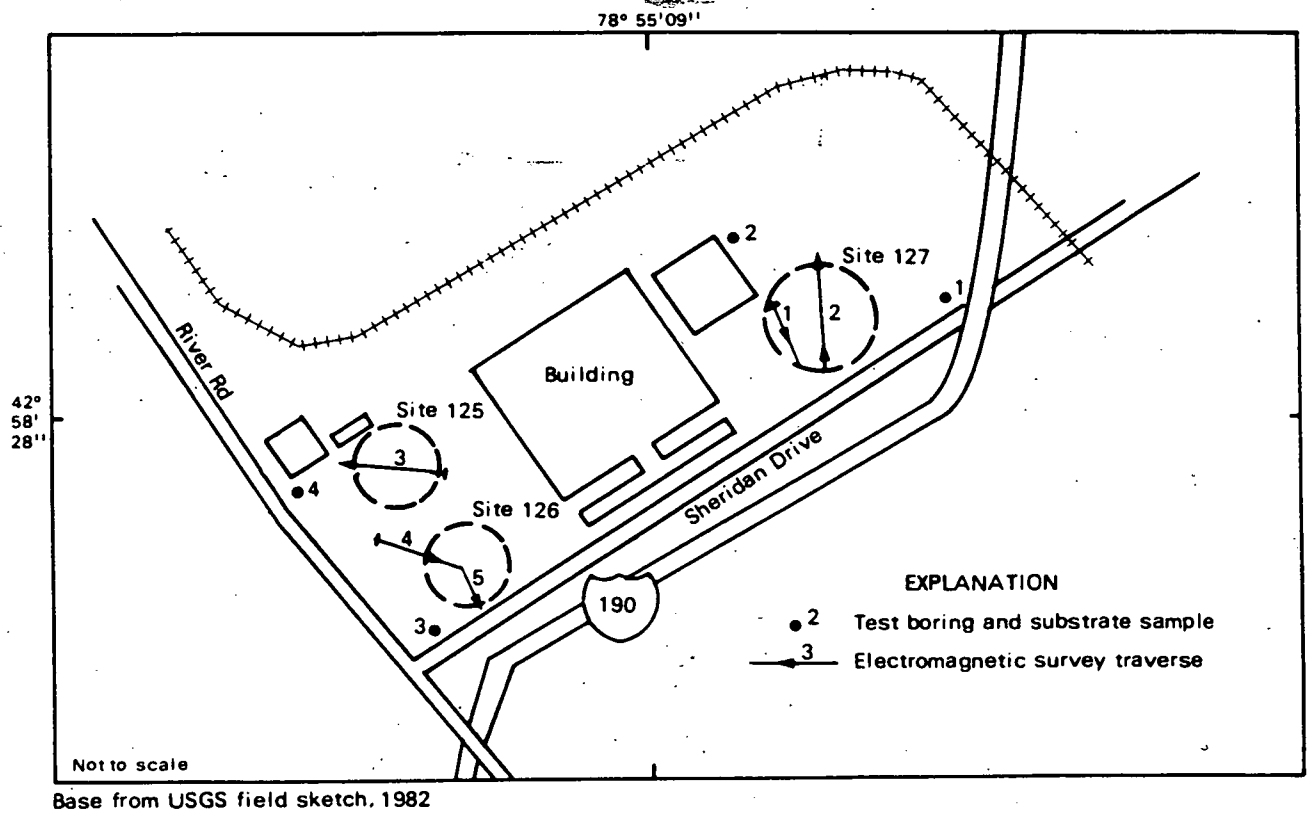


Figure B-18. Location of sampling holes and electromagnetic-conductivity survey lines at Dunlop Tire and Rubber Company, sites 125, 126, and 127, Tonawanda.

Boring no.	Depth (ft)	Description
1	0 - 1.5	Dark organic soils.
	1.5 - 4.0	Same.
	4.0 - 6.5	Clay, brown, some sand, hit gravel at 6 to 6.5 ft.
	6.5 - 11.5	Clay, pinkish, dry.
	11.5 - 16.5	Same.
		SAMPLE: 1.8 ft.
2	0 - 1.5	Black organic topsoil, wet.
	1.5 - 2.0	Same.
	2.0 - 4.0	Clay, sandy, yellowish.
	4.0 - 6.5	Clay, brownish-pink.
	6.5 - 10.0	Same.
		SAMPLE: 1 ft.
3	0 - 1.0	Black organic topsoil.
	1.0 - 3.0	Black and white organic zone
	3.0 - 16.5	Clay, reddish, some sand, dry
	16.5 - 21.5	Clay.
		SAMPLE: 3 ft.
4	0 - 1.5	Brown/black organic topsoil, some rocks.
	1.5 - 4.0	Clay, reddish brown, with well-rounded and polished pebbles.
	4.0 - 6.5	Hard zone at 4 ft--went through fairly easily; hit another about 5.5 ft. Returns indicate gravel zone.
	6.0 - 11.5	Same, becoming sandy last 2 to 3 ft.
	11.5 - 17.0	Same, hit brown clay at about 17 ft.
		SAMPLE: 1.5 ft.

Chemical information.--The Geological Survey collected a soil sample from each borehole for organic-compound analysis and split each with representatives of the site owner for private analysis. The site owner's results are given in table B-20. The Geological Survey data were lost, and the site was not resampled.

Table B-20.--Analyses of soil samples from Dunlop Tire and Rubber Company, sites 125, 126, and 127, Tonawanda, N.Y., July 1982[1]
[Locations are shown in fig. B-18; concentrations are in µg/kg.]

Constituent	Sample number			
	1	2	3	4
Total volatile organic halogens	1,070	351	448	82
Total Kjedahl nitrogen	1,680,000	708,000	747,000	673,000
Phenol	188	219	194	196

[1] Data from Dunlop Tire and Rubber Company, Tonawanda, NY.

Electromagnetic survey.--The Geological Survey conducted an electromagnetic survey with five traverses in November 1982. Locations are shown in figure B-18; the data are plotted in figure B-19.

The location of line 1 is controlled primarily by the railroad tracks. Even the first 50 ft of the line are clearly within an area of artificial fill, which shows even more clearly in line 2 (p. 234). The values in the vicinity of the 250-ft mark (near 1,000 μmho/m) were the highest recorded during the entire study. Line 2 ends in the middle of the swamp and has conductivity values above those expected for uncontaminated materials, which suggests the presence of leachate.

The beginning of line 3 also shows evidence of artificial fill, but near-background values begin within 200 ft and persist for 200 ft. Beyond that point, conductivity values rise slightly.

Line 4 (p. 234) shows clear evidence of a buried conductor (probably metallic) just beyond 200 ft, beyond which is a zone of natural conductivity values. This does not necessarily mean that the ground there is uncontaminated because not all contaminants change the local conductivity. Near the parking-lot fence, the values again indicate artificial fill.

Line 5 (p. 235), run within 20 ft of the parking-lot fence, indicates buried material that differs from that along lines 3 and 4. At the 450-ft mark, conductivities are almost as high as the highest values in line 2, which suggests that the waste material underlying lines 2 and 5 may be similar.

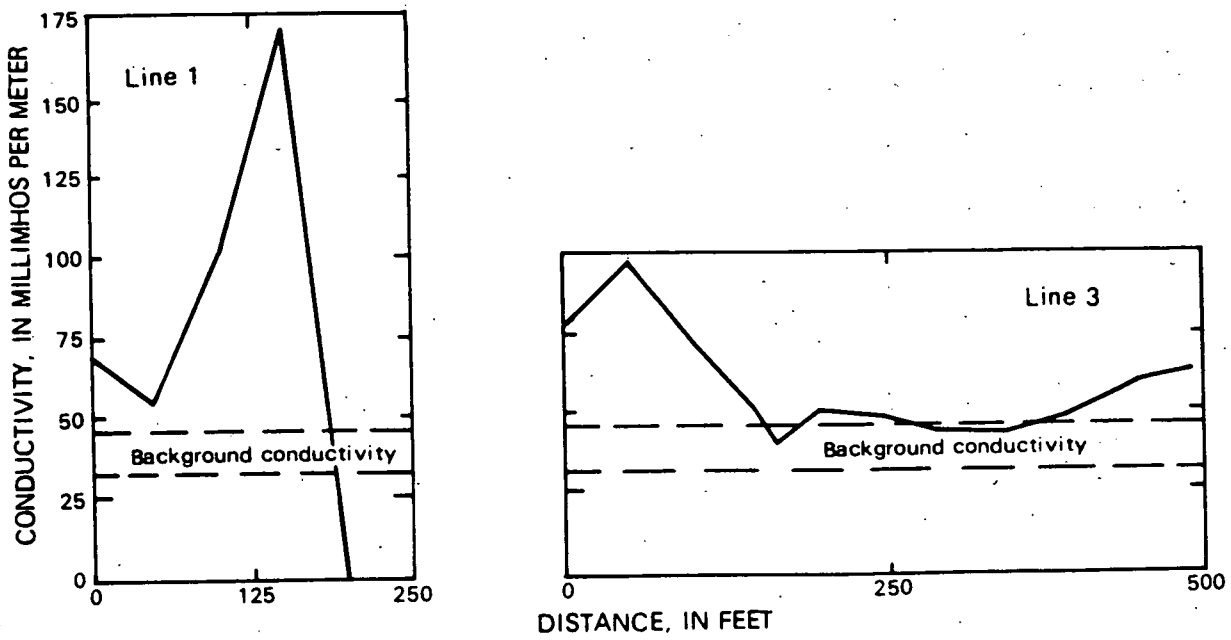


Figure B-19. Results of electromagnetic-conductivity survey at Dunlop Tire and Rubber Company, sites 125, 126, and 127, Tonawanda, lines 1 and 3.

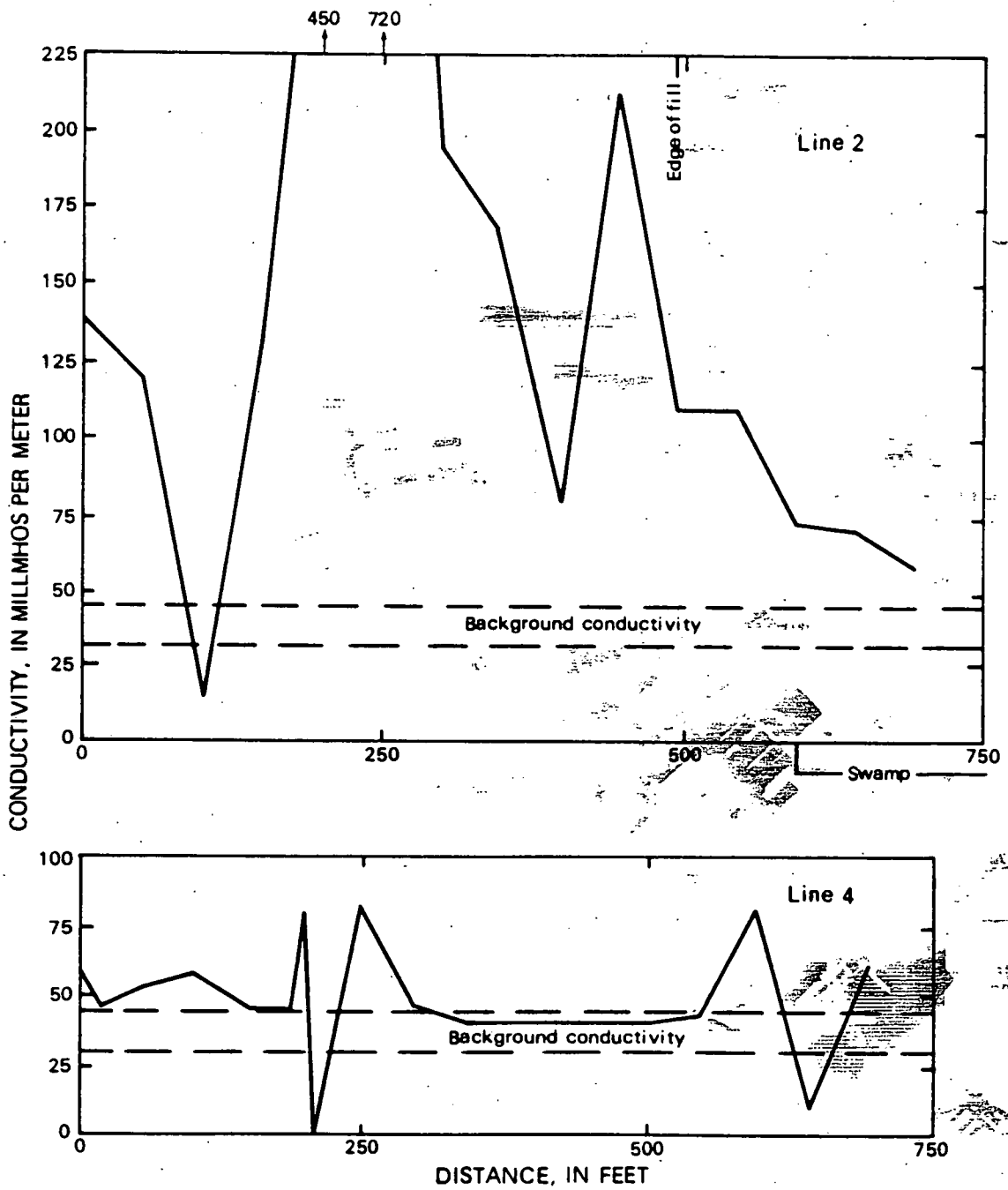


Figure B-19 (continued). Results of electromagnetic-conductivity survey at Dunlop Tire and Rubber Company, sites 125, 126, and 127, Tonawanda, lines 2 and 4.

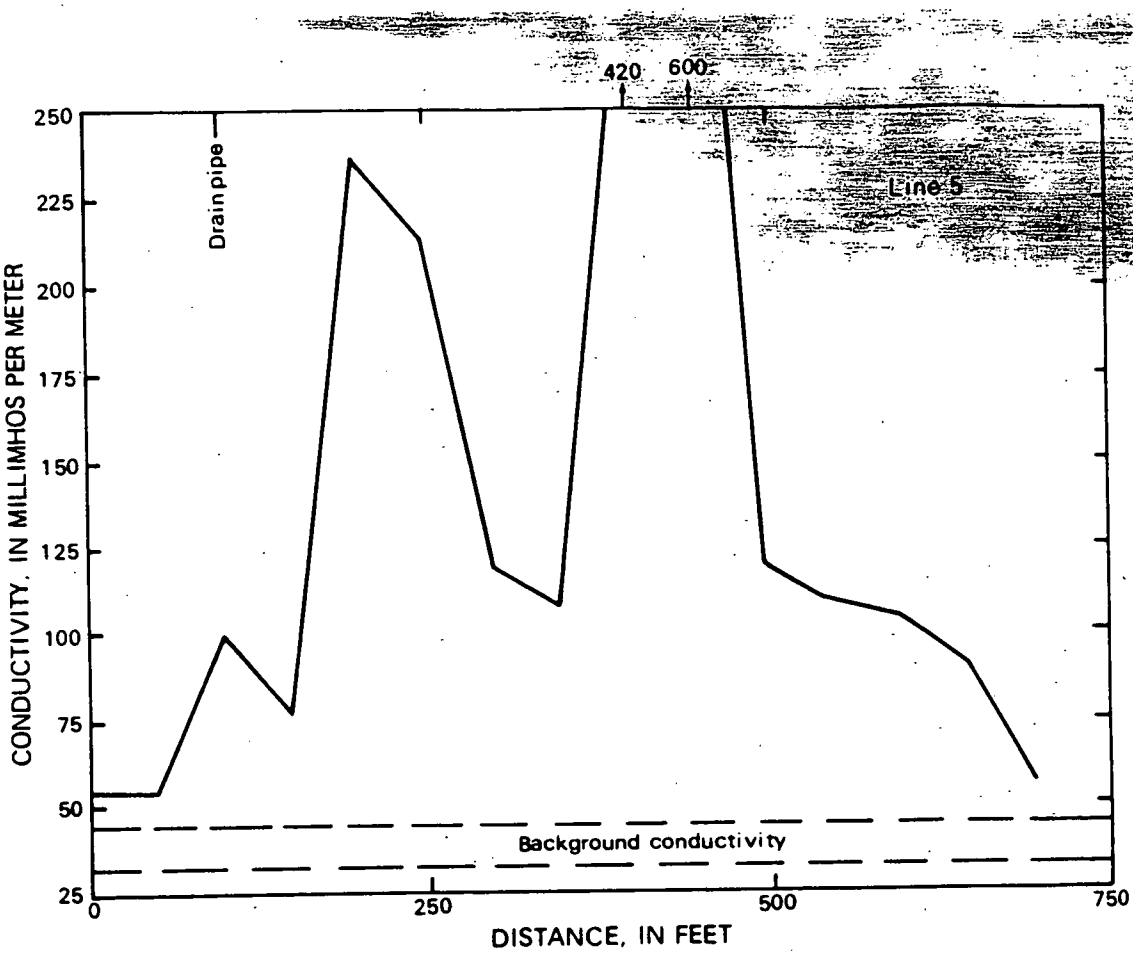


Figure B-19 (continued). Results of electromagnetic-conductivity survey at Dunlop Tire and Rubber Company, sites 125, 126, and 127, Tonawanda, line 5.

128. DUPONT COMPANY (USGS reconnaissance) NYSDEC 915019

General information and chemical-migration potential.--The Dupont Company site, in the town of Tonawanda, consists of six excavated pits that were filled with various materials during 1921-78. The types and quantity of buried material are as follows:

cellulosic-ulicose, rayon, cellophane, and sponges	80,000 tons
dry "Corian" waste	5,000 tons
polyvinyl alcohol film	100 tons
wet "Corian" waste	1,500 tons
"Vexar" netting	1,500 tons
dry "Tedlar" polyvinyl fluoride film	750 tons
"Tedlar" with dimethylacetamide	1,000 tons
nylon [illegible]ters and water-based paints	75 tons
miscellaneous laboratory chemicals and foundry	1 ton
sand from an automobile manufacturing plant	

4/11/85
doc#1198P

DRAFT ok as used 12/16

File

STATE ID # 915018 A
STATE CLASS. 2a
DOH RANKING
DEC RANKING
HRS SCORE

BUREAU OF TOXIC SUBSTANCE ASSESSMENT
HAZARDOUS WASTE SITE INSPECTION REPORT

Identifying Information

SITE NAME: Dunlop Tire & Rubber

ADDRESS: Sheridan Dr & River Rd. Tonawanda N.Y 14150

OWNER: Dunlop Tire & Rubber

ADDRESS & PHONE NO.: (716) 879-8200

LOCAL CONTACT: Daniel Pyanowski

ADDRESS & PHONE NO.: P.O. Box 1109 142-40 (716) 879-8274

DEC REGION: 9 DOH REGION: Buff COUNTY: Erie TOWN: Tonawanda.

QUADRANGLE MAP: NW

INSPECTORS & DATE: Mann Klein 6/5/85

Site Data

SIZE (acres): 2.5 TERRAIN: Hilly ___ Flat X

SUBURBAN: X URBAN: ___ RURAL: ___

INDUSTRIAL: X MUNICIPAL: ___ OTHER: ___

ACTIVE: X INACTIVE: ___

KNOWN AND SUSPECTED USERS: Dunlop Tire

CONTAMINANTS OF CONCERN:

Soil Vapor ___

Soil Contact ___

Groundwater ___

KNOWN CONTAMINATION:

	On Site	Off Site
Air	___	___
Groundwater	X	___
Surface Water	___	___
Drinking Water	___	___
Surface Soil	___	___
Sub Surface Soil	___	___

DOH-33
(4/85)

Site Status

		Agencies Involved:	
Inspection:	✓	DOH	✓
Investigation:	✓	DEC	✓
Negotiation:		DOL	
Litigation:		EPA	
Remediation:		County	✓ DEP

Comments

Dump area for construction and demolition debris.

Land Use:

Identify on topo map/sketch immediate area

1. Residential

   type: single family residences
   apartments/condominiums

   residential area 1 mi. to NE, and 1 mi. to SE

2. Agricultural

   type: truck farming
   dairy farming
   livestock

   None

3. Commercial/Industrial

   type:

   Site located in area of heavy industry.

4. Open Space

   parks
   playgrounds
   ballfields

   Park 1½ mi. to SE., several Marina's located along Niagara river.

5. Undeveloped

6. Sensitive Targets

   schools
   hospitals
   churches

7. Specific targets identified during inspection

8. Complicating factors

   railyards
   oil depots
   power stations

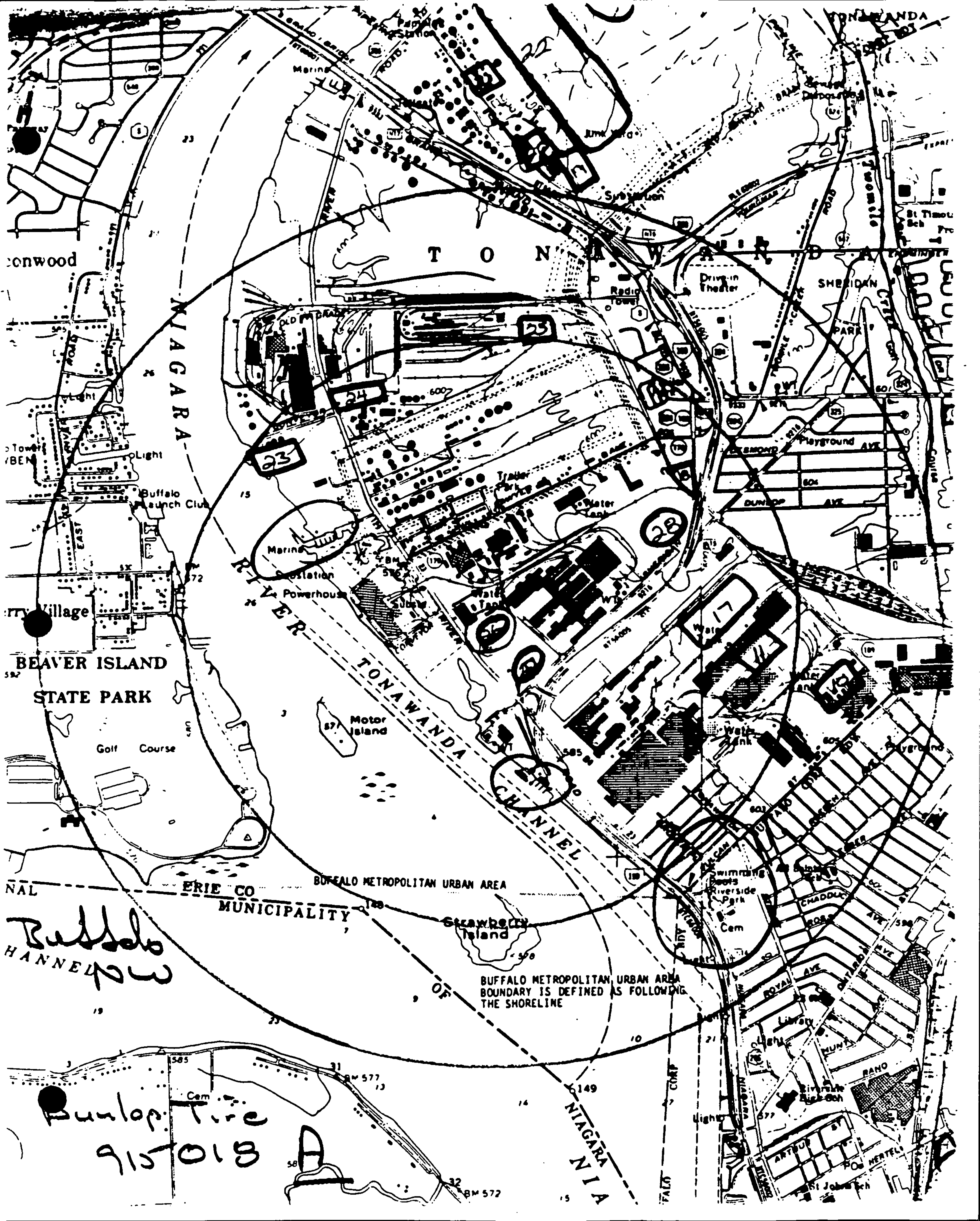
   other inactive hazardous waste sites located within 1 mi. of site

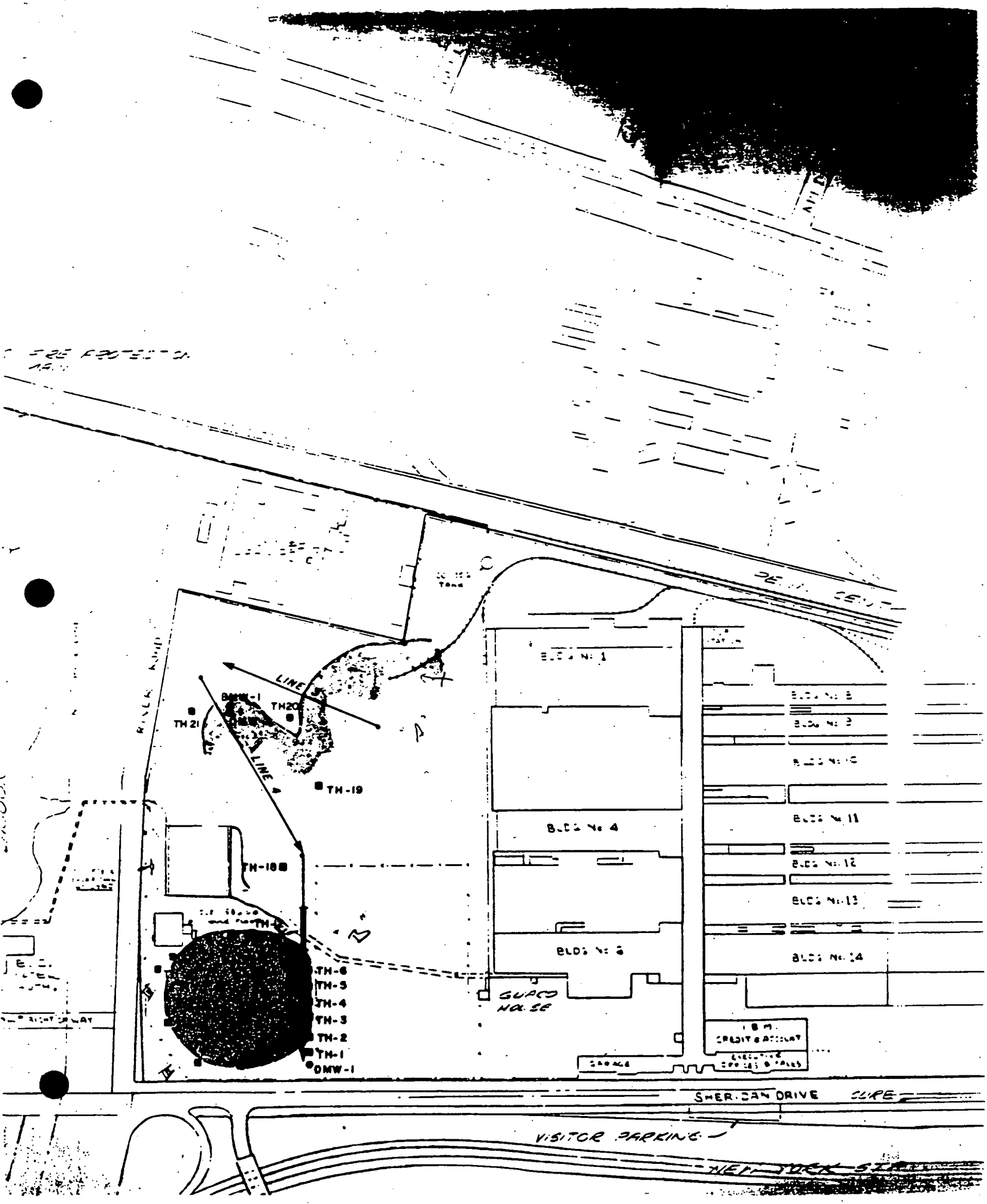
9. Indicate location where a change of landuse is expected. What it the planned future use?

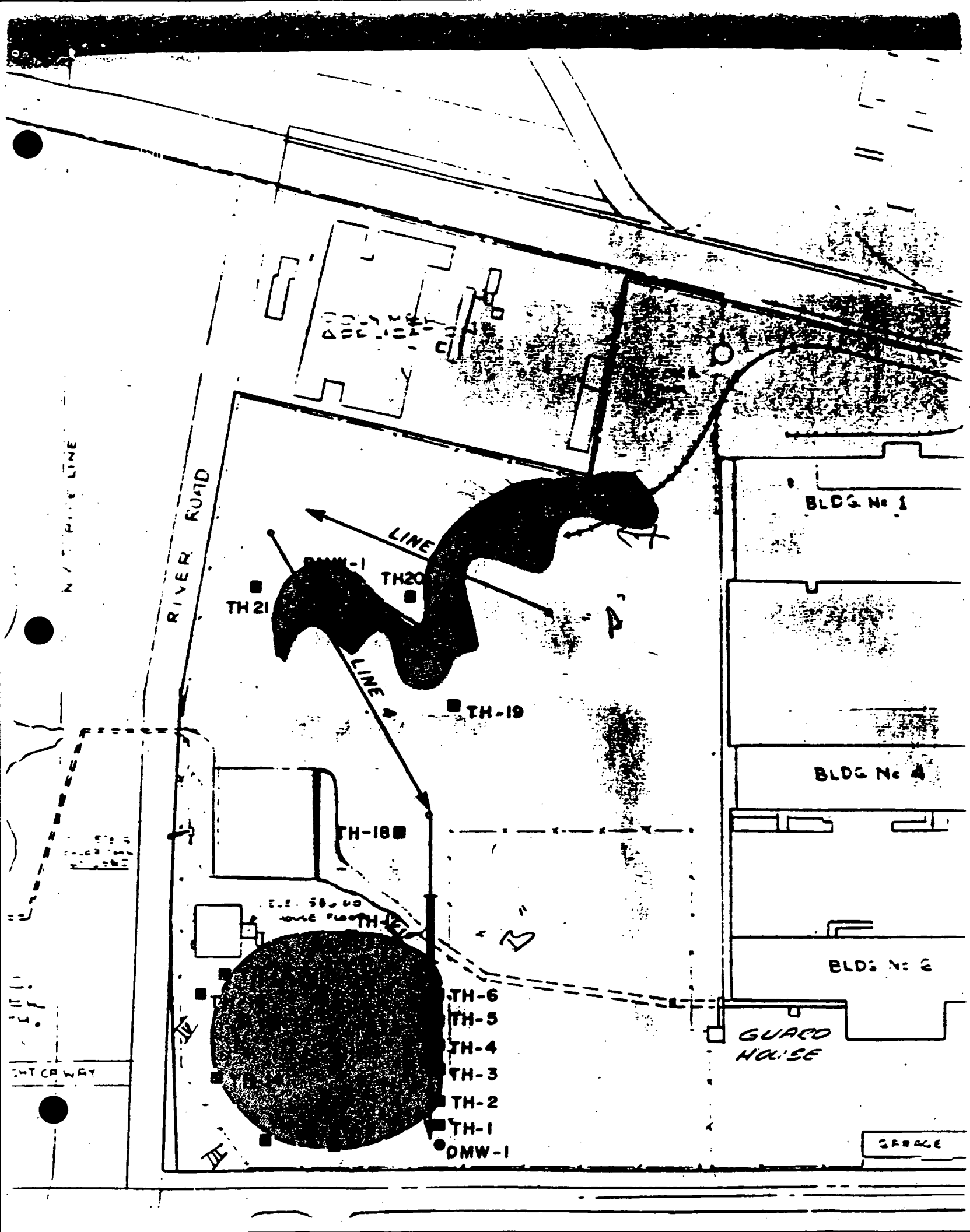
   none.

Allied Chem.
U.S. Air Force # 40 - (11) 915067 -
Dupont - (17) 915019
Tonawanda Coke (23) 915055 A
Ton Coke (24) B
Ton Coke 25 C

FMC


TONAWANDA
NIAGARA RIVER
TONAWANDA CHANNEL
BEAVER ISLAND
STATE PARK
Golf Course
Motor Island
Strawberry Island
ERIE CO
MUNICIPALITY
BUFFALO METROPOLITAN URBAN AREA
BUFFALO METROPOLITAN URBAN AREA BOUNDARY IS DEFINED AS FOLLOWING THE SHORELINE
Marina
Substation
Powerhouse
Buffalo Launch Club
Drive-in Theater
Radio Tower
SHERIDAN
Playground
Riverside Park
Swimming Pools
Cem
Library
Riverside High Sch
Junk Yard
23
24
28
17
Buffalo NW
Dunlop Tire
915018


LINE A
LINE A
MW-1
TH20
TH 21
TH-19
TH-18
TH-6
TH-5
TH-4
TH-3
TH-2
TH-1
OMW-1
BLDG No. 1
BLDG No. 4
BLDG No. 8
GUARD HOUSE
SHERIDAN DRIVE
VISITOR PARKING


RIVER ROAD
LINE
LINE
TH 21
TH20
TH-19
TH-18
TH-6
TH-5
TH-4
TH-3
TH-2
TH-1
DMW-1
BLDG No 1
BLDG No 4
BLDG No 6
GUARD HOUSE
GARAGE

Site Name [illegible] Tire & Rubber Site No. [illegible]

2. Toxicity - Contaminants of Concern

RUI 2

Table 2-2. Waste Compounds: Quantities and Toxicity

Waste	Quantity (Tons)	Individual Compounds	CAS Number	Quantity (Tons)	Toxicity Rating
		Sulfur	7704-34-9		
		[illegible]-2	108-95-2		3
Solvents (Halogenated hydrocarbons)					
		1,1,1-Trichloroethane	71-55-6		2
		Trichloroethene	79-01-6		3
Pigments					
		Carbon black	7440-44-0		
		Zinc oxide	1314-13-2		3
		titanium dioxide	13463-67-7		3
Inorganics		Arsenic trioxide	1327-53-3		4
		Chromium (III) oxide	1308-38-9		4
		Cadmium oxide	1306-19-0		4
		Lead monoxide	1317-36-8		2
Amines		N-phenyl-2-naphthylamine	135-88-6		
		diphenylamine	122-39-4		

Table 2-3. Chemical/Physical Properties

Most Toxic Compounds	Persistence Value P	Solubility ppm @ 20 C	Vap. Press. (mm Hg) @ 25 C	Soil Partit. Coefficient
Arsenic trioxide		moderately soluble	—	
Chromium (III) oxide		insoluble	—	
Cadmium oxide		insoluble	—	
Phenol		93000	0.351	
Trichloroethene		1100	74	
Diphenylamine		300		

Table 2-4. Use data from CHEMDATA tables.

Compound	Leaching Index	Evaporation Potential	Soil Retention Index
Arsenic Trioxide	++	+	++
Chromium (III) oxide	+	+	+++
Cadmium oxide	+	+	+++
Phenol	+++	++	+
Trichloroethane	+++	+++	+
Dimethylamine	+++	++	+

Table 2-5. Contaminants of Concern

Compound of Concern	Soil Vapor (High LI)	Soil Contact (High SRI)	Groundwater (High LP, Med V)
Arsenic trioxide			✓
Chromium (III) oxide		✓	
Cadmium oxide		✓	
Phenol	✓		✓
Trichloroethane	✓		✓
Dimethylamine			✓

2. Toxicity - Contaminants of Concern

Table 2-2. Waste Compounds: Quantities and Toxicity

Waste	Quantity (Tons)	Individual Compounds	CAS Number	Quantity (Tons)	Toxicity Rating

Table 2-3. Chemical/Physical Properties

Most Toxic Compounds	Persistence Value P	Solubility ppm @ 20 C	Vap. Press. (mm Hg) @ 25 C	Soil Partit. Coefficient

Table 2-4. Use data from CHEMDATA tables.

Compound	Leaching Index	Evaporation Potential	Soil Retention Index

Table 2-5. Contaminants of Concern

Compound of Concern	Soil Vapor (High EP)	Soil Contact (High SRI)	Groundwater (High LI, Med V)

3. Onsite Contact

3.1 Target Populations - Estimate values when possible. Use values from table 3.1 only if no data available.

Site Use	Number of Persons	Avg. Hours per Day
Site located within industrial facility. Accessable to employees. Area adjacent to loading docks.	5	8

Reasons for adjustments, if used:

3.2 Probability of Contact - Onsite

Describe evidence of site usage by people (i.e., paths and trails, play areas, soda cans, shotgun shells, etc.)

Area used for construction & demolition debree disposal.

1) Observed Incident — If there is a confirmed incident, score 1 and document with date, location and pertinent details. If none, score 0: 0

2) Estimate Probability of Contact

Accessibility - Describe barriers of controls which limit site access to humans

None. / Site located in industrial facility. Fence & guard. Target population is employee's

Assign value 0, 1, 2 or 3 which corresponds with similar description in Table 3-2, Accessibility Values for Direct Contact: 3.

Containment

Identify conditions observed during this site inspection (check column A) and/or those of others (check column B).

	Assigned Value	A	B
Some odor on site	2		
Strong odors on site	3		
Exposed patches or piles of solid waste	3	X	
Open creeks or drainage ditches on site or emerging from site	2		
Soil stained by liquid (area greater than $10m^2$)	2		
Ponded or saturated areas of liquid waste	3		
Discolored surface water or drainage ditches	3		
Areas of stressed vegetation (or absent vegetation)	3		
For containers:			
Containers sealed and in sound condition, protected from deterioration by weather	0		
Containers sealed and sound, no protection	1		
Containers deteriorated, no evidence of leakage or liquid contents	2		
Containers leaking or liquid visible	3		
For landfills:			
Capped with sound, impermeable materials; adequate leachate collection system	0		
Capped with sound, impermeable materials; inadequate or no leachate collection system	1		
Poorly capped and no leachate collection; likelihood of overflow or seepage	2	X	
Observed seepage	3		

Assign highest containment score of conditions identified 3

Adjacent Population

Estimate the population within 1 mile of the site. Assign appropriate score 0, 1, 2 or 3 from Table 3-4, below.

Population estimate: 1000 Score 1

3.3 Exposure Estimate: Onsite Record the highest surface soil concentration measured of the contaminant of concern (soil-contact)

_____ ug/g

Onsite Contact - Comments - Provide additional comments specific to onsite contact.

4. Groundwater and Gas Migration

Identify the aquifers beneath the site fron hydo-geological data or well depths in the area.

Aquifer Design.	Depth (ft)	Groundwater wells Dist.	Direction	Depth	Contaminated ?
Unconsolidated deposits		< 70'		21.8 m	
	0 — 9'				Yes (OMW2)
	2.8m				
Bedrock aquifer - Saline dolomite					
	> 70'				

4.1 Target Populations

Identify target groups by common use (or exposure) and/or common location with respect to the site, (drinking water wells, wet basements, watering crops springs or seepage, gas in basement). In addition identify populations with those groupings with documented contamination. Locate groups on land use maps.

Group	Common Use or Exposure	Direction from site (N,NNE,SW)	Distance from site (meters)	Number of people affected Potential Res.	Potential Non-Res.	Actual Res.	Actual Non-Res.
None: area served by public water, only wells in area are for industrial w/ process water. (2 wells located on Dunlop property)							

4.2 Probability of Transport (Release)

4.2.1 Observed Release

If a groundwater release has been measured, score 1, and skip to 4.3
If none, score 0: 1

4.2.2 No Observed Release

Do area wells exhibit taste and odor? Yes or No: Yes

1) Aquifer proximity

The vertical distance from the lowest point of the hazardous substances to the highest seasonal level of the saturated zone of the aquifer of concern is 9 feet. 2.8 m

Assign score 0, 1, 2, 3 according to Table 4-2, 3

2) Net Precipitation

The net precipitation for the region is _____ inches.
Assign score 0, 1, 2, 3 according to Table 4-3, Net Precipitation. _____

3) Permeability

The geologic material beneath the site is primarily clay, with a hydraulic conductivity of 4.9×10^{-8} cm/sec.
Assign score 0, 1, 2, 3 according to Table 4-4,
Permeability of Geologic Materials. 0.1

4) Leaching Value

The highest leaching index identified in Table 2-4 is _____.
Assign score 0, 1, 2, 3 according to Table 4-5
Leaching Potential. _____

5) Containment

If all the hazardous substances at the facility are underlain by an essentially non-permeable surface (natural or artificial) or if there is no groundwater in the vicinity score 0. _____

If not identify conditions observed during this site inspection (check column A) and/or those of others (check column B).

A. Surface Impoundment (and Liquid Dumping)	ASSIGNED VALUE	A	B
Sound run-on diversion structure, essentially non-permeable liner (natural or artificial) compatible with the waste and adequate leachate collection system.	0.1		
Essentially non-permeable compatible liner with no leachate collection system; or inadequate freeboard.	1		
Potentially unsound run-on diversion structure; or moderately permeable compatible liner.	2		
Unsound run-on diversion structure, no liner, or incompatible liner.	3		

B. Containers			
Containers sealed and in sound condition, adequate liner, and adequate leachate collection system.	0.1		
Containers sealed and in sound condition, no liner or moderately permeable liner.	1		
Containers leaking, moderately permeable liner.	2		
Containers leaking and no liner or incompatible liner.	3		

C. Piles — ASSIGNED VALUE A B

Piles uncovered and waste stabilized; or piles covered waste unstabilized, and essentially non-permeable liner.	0.1
Piles uncovered, waste unstabilized, moderately permeable liner, and leachate collection system.	1
Piles uncovered, waste unstabilized, moderately permeable liner, and no leachate collection systems.	2
Piles uncovered, waste unstabilized, and no liner.	3

D. Landfill

Essentially non-permeable liner, liner compatible with waste, and adequate leachate collection.	0.1
Essentially non-permeable compatible liner, no leachate collection system, and landfill surface precludes ponding.	1
Moderately permeable, compatible liner, and landfill surface precludes ponding.	2
No liner or incompatible liner; moderately permeable compatible liner; landfill surface encourages ponding; no run-on control.	3

E. Subsurface Discharge — 3

Assign highest score of conditions identified. _____

4.3 Exposure Estimate: Wells

1) Observed Release

If groundwater contamination has been measured in wells, tabulate the data below. Use only the contaminant at the highest concentration in any one well.

Aquifer	Contaminant	Concentration (ppm)	Distance From Waste
Unconsolidated			
	phenols	.0476	0
	chloroform	.0007	0
	1,1,1 trichloroethylene	.0006	0
	TCE	.0016	0

4.4 Exposure Estimate: Basements

Groundwater:

If contamination has been measured in basement air, water, or sediment, tabulate the data

Contaminant	Medium	Concentration	Distance from Source
none			

Identify area homes which could experience basement seepage of groundwater. Also record groundwater contamination measured in the vicinity.

Area	Number of Houses	Distance (m) from Waste	Groundwater Contamination	Known or Calculated
none				

Gases (Generated onsite):

If contamination has been measured in indoor (generally basement) air, or monitoring wells, tabulate the data.

Contaminant	Concentration	Distance from Source
none		

Identify area homes which could experience infiltration of gases. Also record groundwater contamination measured in the vicinity.

Area	Number of Houses	Distance (m) from Waste	Groundwater Contamination	Known or Calculated
none				

Describe any measures taken to control onsite gas generation.

Groundwater and Gas Migration - Comments

Provide additional comments specific to Groundwater and Gas Migration.

5. Air Transport

5.1 Target Populations

Identify the general population distribution within 4 miles of the site, as well as population groups within 1.5 miles that may be chronically exposed to air emissions from the site.

Population factor within a four-mile radius: 21

Target populations within 1.5 miles (2400m):

Group	Distance (meters)	Direction (N, NE, E)	Number of Persons	Exposure Res	Exposure Non-Res.	Exposure * Avg. Hrs. Per Day
Homes located Sawyer Ave area						
	700m	NNW	125	X	—	24
Homes located to SE						
	1500m	SE	200	X	—	24
Homes located NE at site						
	1500 m	NE	50	X	—	24

* Assume 24 hrs for residents, 12 hours for non-residents.

If a wind rose is available for the site, indicate the prevailing wind direction SW

94 3257

5.2 Probability of Contact or Transport - Vapor

5.2.1 Observed Release

If release of air contaminants (other than dust) has been measured on or near the site, score 1 and skip to 5.3., If none score 0 ___0___

5.2.2 Estimate Probability of Release

Identify conditions observed during this site inspection (check column A) and/or those of others (check column B)

	Assigned Value	A	B
Containment			
Some odor on site	1		
Strong odors on site	2		
Odor problems observed offsite	3		
Exposed patches or piles of solid waste	1	X	
Soil stained by liquid (area greater than $10m^2$)	2		
Ponded or saturated areas of liquid waste	3		
Containers:			
Containers sealed and in sound condition, protected from deterioration by weather	0		
Containers sealed and sound, no protection	1		
Containers deteriorated, no evidence of leakage or liquid contents	2		
Containers leaking or liquid visible	3		
Landfills:			
Capped with sound, impermeable materials; adequate leachate collection system	0		
Capped with sound, impermeable materials; inadequate or no leachate collection system	1		
Poorly capped and no leachate collection; likelihood of overflow or seepage	2	X	
Observed seepage	3		

Assign highest containment score of conditions identified. ___2___

Volatility

From Table 5-2, Volatility Values for Air Route, assign score 0, 1, 2, 3 based on the evaporation potential of the contaminant of concern (soil-vapor): _____

Contaminant of Concern (Soil-Vapor) _____

Evaporation Potential _____

Reactivity and incompatibility

Assign scores 0, 1, 2 or 3 for reactivity and incompatibility and enter higher score. _____

5.3 Exposure Estimate - Vapor

5.3.1 If a vapor or gas release has been documented tabulate the data.

Contaminant	Concentration	Distance from Source

5.4 Probability of Contact or Transport - Particulate Matter

1) Observed Release - If a particulate release has been documented score 1 and skip 2). If none, score 0 — 0

2) Estimated Probability of Transport

Identify conditions observed during this site inspection (check column A) and/or those of others (check Column B).

	Assigned Value	A	B
Containment			
Soil stained by liquid (area greater than $10m^2$)	2		
Exposed patches or piles of solid waste	3	X	
For containers:			
Containers sealed and in sound condition	0		
Containers deteriorated, no evidence of leakage	2		
Containers leaking or contents visible	3		
For landfills:			
Lined and capped; no evidence of leaching or seepage	0		
Inadequate drainage or leachate collection; likelihood of overflow or seepage	2	X	
Observed Seepage	3		
Assign highest score of conditions identified		3	
Disturbance			
Site is completely enclosed by a secure fence; access controlled.	0		
Access uncontrolled or easy; no evidence of use.	1		
Easy access; evidence of use.	2	X	
Evidence that solid waste is disturbed.	3		
Assign highest score of conditions identified.		2	

Precipitation

Enter the mean annual number of days with snow cover or more than 0.01 inches of precipitation.

W = 219 days

5.5 Exposure Estimate: Particulate Matter

If a release has been documented complete 5.5.1
If none, complete 5.5.2

5.5.1 Concentration-measured

Contaminant	Concentration (ug/m^3)	Distance from Source

5.5.2 No measured air contaminant concentrations

For the soil contaminant of concern, estimate the sum of the areas of potentially contaminated exposed surfaces including piles, stained or exposed soil, and areas subject to flooding or runoff but usually dry

$A = 6 \times 10^{3}$ m^2

Assign concentration of suspended particulate matter according to Table 5-7 Source Concentration of Suspended Particulate Matter

$P = 0.5 \times 10^{-4}$ g/m^3

Air Transport - Comments

Provide additional comments specific to Air Transport.

6. Surface Water Runoff

6.1 Target Populations

6.1.1 Surface Water

Identify surface water bodies believed to receive surface runoff (s) or to be fed by groundwater (g) that may be contaminated by the facility

Body of Water	(s) or (g)	Known Contam.?	Distance From Site	Uses & Persons Affected: Drinking (Persons)	Swimming (Persons)	Fishing (Persons)	Irrigation (Usage, gal/day)
Niagara River							
	S	Yes	275 m	Yes (150 000)	Yes 1	Yes 1	Yes 1

6.1.2 Yards, Playgrounds and Agriculture

Identify individual homes, playgrounds, or groups of residences which might be contaminated by surface runoff directly, flooded basements, or storm sewer back up.

Targets: Parks Playgrounds	Residences (Number)	Distance from Site	Route of Contamination: Yard	Known Contam	Basement Flooding	Known Contam	Storm Sewer	Known Contam
None								

Identify gardens or agricultural areas down-slope from the site which may receive significant surface runoff.

Livestock Farm	GARDENS Commercial	GARDENS Private	Distance from Site	Known Contamination	Area of Potentially Affected Land
None					

6.2 Probability of Transport

6.2.1 Observed Transport - Storm sewers, Overland flow, Ditches

6.2.2.1 Drainage Ditches

If a stream cuts through the site, score 1. _____

If there are no topographical features that serve as channels for flow of runoff, score 0. _____

If such features exist and if contaminants have been measured in soil sediment or water, score 1. _____

If such features exist but contaminants have not been measured in soil sediment or water score 0 and complete Containment and Rainfall. 0

6.2.2.2 Storm Sewers

If there are no storm sewers within 1/4 mile (400m) of the site, score 0.
If contaminants from the landfill have been detected in a storm sewer within 1/4 mile (400m) of the site (or directly fed by a ditch from the site) score 1. _____

If there are storm sewers within 1/4 mile (400m) of the site, but contaminants have not been found, score 0 and complete Containment, Rainfall and Route Characteristics. 0

6.2.2.3 Overland Flow

If contaminants have been measured in soil or surface water offsite, score 1 and skip to 6.3. 0

If contaminants have not been measured in soil or surface water offsite, score 0 and complete Containment, Rainfall, Route Characteristics, and Distance to Target.

Containment - Identify conditions observed during this site inspection (check column A) and/or those of others (check column B).

	ASSIGNED VALUE	A	B
A. Surface Impoundment (and Liquid Dumping)			
Sound diking or diversion structure, adequate freeboard, and no erosion evident.	0		
Sound diking or diversion structures, but inadequate freeboard.	1		
Diking not leaking, but potentially unsound.	2		
Diking unsound, leaking, or in danger of collapse.	3		
B. Containers			
Containers sealed, in sound condition, and surrounded by sound diversion or containment system.	0		
Containers sealed in sound condition, but not surrounded by sound diversion or containment system.	1		
Containers leaking and diversion or containment structures protentially unsound.	2		
Containers leaking, and no diversion or containment structures or diversion structures leaking or in danger or collapse.	3		
C. Waste Piles			
Piles are covered and surrounded by sound diversion or containment system.	0		
Piles covered, wastes unconsolidated, diversion or containment system not adequate.	1		
Piles not covered, waste unconsolidated, and diversion or containment system potentially unsound.	2		
Piles not covered, waste unconsolidated and no diversion or containment; or diversion system leaking or in danger of collapses.	3		

	ASSIGNED VALUE	A	B
D. Landfill			
Landfill slope precludes runoff, landfill surround by sound diversion system, or landfill has adequate cover material.	0		
Landfill not adequately covered and diversion system sound.	1	X	
Landfill not covered and diversion system potentially unsound.	2		
Landfill not covered and no diversion system present, or diversion system unsound.	3		

From Table 6-1, Containment Values for Surface Water Runoff, assign highest score of conditions unidentified. 1

Rainfall

The one-year 24 hour rainfall for the area is 2.1 inches.

Assign score 0, 1, 2, 3 according to Table 6-2, Rainfall Values. 2

Route Characteristics

Facility slope: - The average slope on site 3 %.

Intervening terrain: - The average slope between the facility and the nearest downhill surface water is 3 %.

Assing score 0, 1, 2, 3 from Table 6-3, Values for Facility Slope and Intervening Terrain. 0

Distance to Target

Estimate the distance for the hazardous substance to the target(s) identified in 6.1 Target Populations including surface water bodies, residential areas, parks, playground, and agricultural areas.

From Table 6-4, Values for Distance to Target assign highest score 0, 1, 2, 3 corresponding to the least distance identified. 2

6.3 Estimated Soil Loss

The normal annual precipitation (R) is 34 inches.

The average slope (S) of the facility is 3 %.
(same as in 6.2.2.3)

The area of exposed contaminants on site (A) is 6×10^3 m^2.
(same as in 5.5)

The length of uphill land draining across the site (L) is 0 m.

Surface Water Runoff- Comments

Provide additional comments specific to surface water runoff.

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: 915018a

NAME OF SITE : Dunlop Tire and Rubber
STREET ADDRESS: Sheridan Drive & River Road
TOWN/CITY: Tonawanda
COUNTY: Erie
ZIP: 14150

SITE TYPE: Open Dump-X Structure- Lagoon- Landfill- Treatment Pond-
ESTIMATED SIZE: 2 Acres

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME....: Dunlop Tire and Rubber
CURRENT OWNER ADDRESS.: Sheridan DR. & River Rd, Tonawanda,NY 14150
OWNER(S) DURING USE...: Dunlop Tire and Rubber
OPERATOR DURING USE...: Same
OPERATOR ADDRESS.....: Same as above
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From 1923 To Present

SITE DESCRIPTION:
This area is reported to have received demolition debris only. In July 1982, the U.S.G.S. collected four soil samples around the Dunlop plant site for organic analysis. This site is included in an ongoing investigation by Dunlop. Initial phase of the investigation was completed and a report was submitted in Nov. 1983. Additional investigation is under way to determine the extent of possible remediation.

HAZARDOUS WASTE DISPOSED: Confirmed- Suspected -X

TYPE	QUANTITY (units)
None known	

SITE CODE: 915018

ANALYTICAL DATA AVAILABLE:

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

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: Clay
GROUNDWATER DEPTH: 12 feet

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

The results of Dunlop's investigation are pending. Assessment of the site must await submission of Dunlop's final investigation report.

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.: Peter Buechi	NAME.: R. Tramontano
TITLE: Assoc. Sanitary Engineer	TITLE: Bur. Tox. Subst. Assess.
NAME.: Roberto A. Olazagasti	NAME.:
TITLE: Solid Waste Management Spec.	TITLE:
DATE.: 01/24/85	DATE.: 01/24/85

AMENDMENT TO ORIGINAL FIELD FORM
UPDATE TO DOH-33-(Rev. 4/86)

Answer **all** questions for 10/15/84 version of Field Form.
* Answer only these questions for 4/85 version of Field Form.
NOTE: Convert **all** distances and depths to meters.

SCREEN NO.

1.2 LOCAL CONTACT: _____

ADDRESS & PH.NO. _____ ( ) _____

*1.3 CONTAMINANTS OF CONCERN:

Groundwater Vapor _____

KNOWN CONTAMINATION:

	On Site	Off Site
Soil Vapor	_____	_____

*6.2 Estimate the number of persons ingesting plants at the site. 0.

*10.2 If a soil vapor release has been measured, score 1, If none, score 0 : 0

Is contamination documented in aquifer only? (T or F)

Is contamination documented in drinking water wells, or at the tap? (T or F)

Is contamination documented in soil-vapor monitoring wells? (T or F)

Is soil-vapor contamination documented in area homes? (T or F)

*10.5 Landfill Type

Toxic landfill only ✓
Municipal landfill only _____
Municipal and toxics landfill _____

12.2 Groundwater (Containment):
Subsurface Discharge

SCREEN NO.

13.3 **Gases/Vapors (Generated Onsite):**
If contamination has been measured in indoor (generally basement) air, or monitoring wells, tabulate the data.

Contaminant	Concentration	Distance from Source

13.4 Identify area homes which could experience infiltration of gases/vapors. Also record gas/vapor contamination measured in the vicinity.

Area	Number of Houses	Distance (m) from Waste	Soil Gas/Vapor Contamination	Known or Calculated

Describe any measures taken to control onsite gas/vapor generation.

19.1 Surface Water Runoff
Target Populations

Body of Water	(s) or (g)

20.2 Drainage Ditches

If a stream cuts through or is immediately adjacent to the site, score 1. _____

*22.2 Rainfall

Does drainage from adjacent property flow across the site? (Y or (N))

*22.3 Is the facility a closed basin? (Y or (N))

Is site in or immediately adjacent to surface water? (Y or (N))

Is the site completely surrounded by areas of higher elevation? (Y or (N))

Mr. Dan Pyanoski
879-8274

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

MEMORANDUM

FROM Ronald D. Koczaja DATE June 19, 1979

TO File

SUBJECT On site waste disposal Dunlop Tire and Rubber Corp. - Tona.

The writer met with Mr. Pedlewski of Dunlop on June 14th to discuss the on site waste disposal practices reported in the IATF draft report. Three distinct areas on the Dunlop property were used for the disposal of scrap rubber, wood, paper, cinders, oils, solvents and plastics.

The attached sketch locates the sites in question.

Site 1: This area received scrap wood, cinders, paper, and rubber products. The size is estimated to be approximately 4 acres. A ditch which passed through the area was filled in and cooling water is now piped through the area. A portion of the disposal site is now a field containing grass and weeds. Cinders and rubber products were visible on the ground surface in the field area. Their was no visible evidence that this area poses a hazard or nuisance.

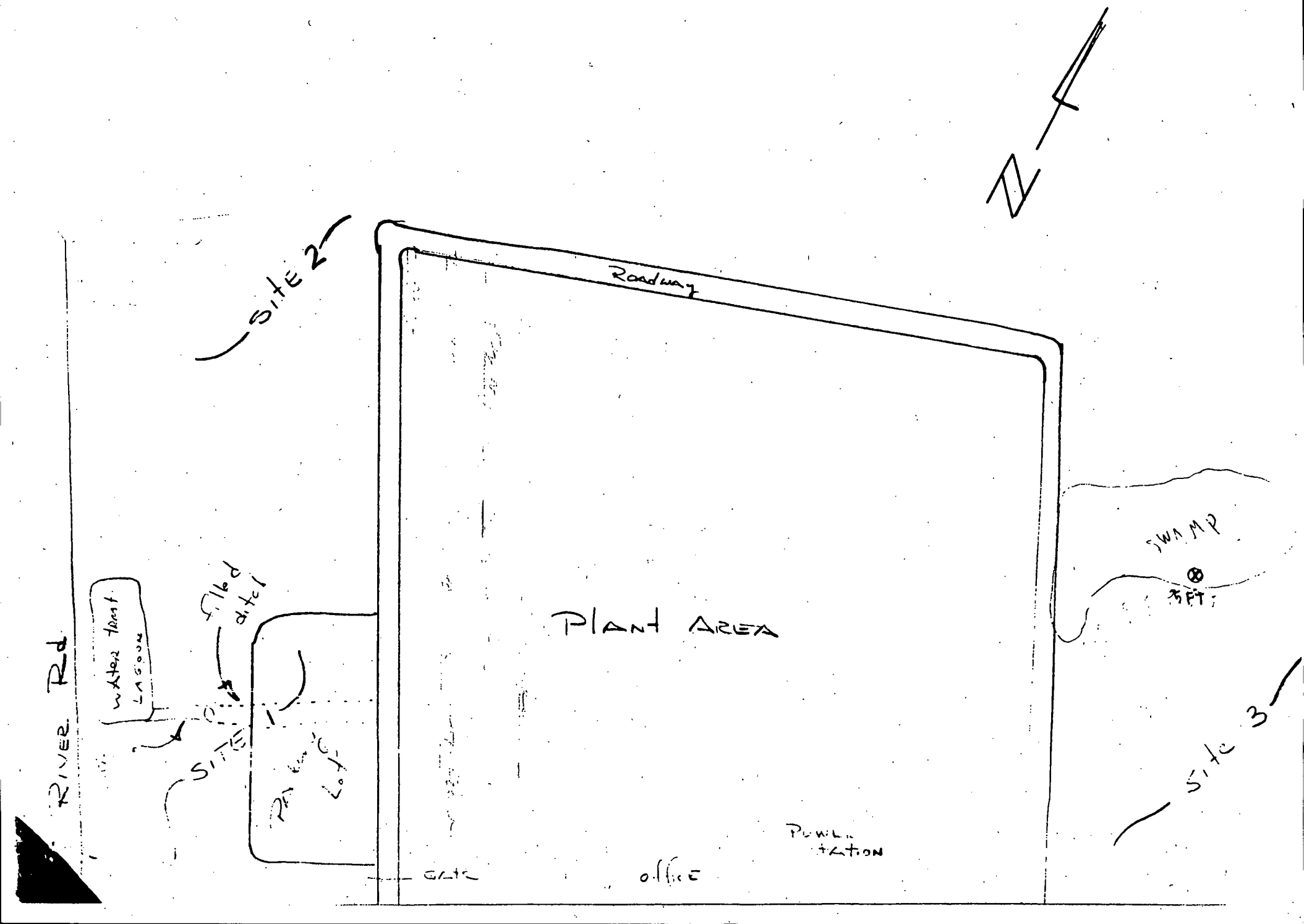
Site 2: This area received waste oils, (drummed and surface disposal), cinders, wood, solvents, building rubble, and rubber products. Disposal on this approximately 4 acre site ceased approximately 15-20 years ago as did disposal in Site 1. The area has returned to fields with grass, weeds, and brush. Mounds of earth and minor accumulative of rubble were visible. Drums from a recent roofing contract were also disposed near this abandoned site. Mr. Pedlewski stated these drums would be removed for proper disposal. As with site 1 this area did not exhibit visual nuisance or environmental problems.

Site 3: This is an 8-10 acre area where cinders from a coal fired power plant were disposed forming a layer estimated to be 4 feet deep. Disposal ceased approximately 10 years ago when the power plant was converted to oil. There is one area of approximately ½-1 acre where ungraded piles of cinders lay. There was no earth cover provided when the cinder disposal ceased. Vegitation is slowly re-establishing itself. This area does not appear to pose an environmental or nuisance problem at this time.

RDK:ao

cc: D. Campbell
L. Clare
R. Mitrey

DUNLOP 6/15/79



SITE 2

47-15-11(2/80)

HAZARDOUS WASTE DISPOSAL SITES REPORT
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

~~Double~~
3/23/84

Code: F
Site Code: 915018-a
Name of Site: Dunlop Tire & Rubber Region: 9
County: Erie Town/City Tonawanda
Street Address: Sheridan Road

Status of Site Narrative:

Area received only demolition debris.

Type of Site: Open Dump [X] Treatment Pond(s) [ ] Number of Ponds ____
Landfill [ ] Lagoon(s) [ ] Number of Lagoons ____
Structure [ ]

Estimated Size 2 Acres

Hazardous Wastes Disposed? Confirmed [ ] Suspected [ ] None known.

*Type and Quantity of Hazardous Wastes:

TYPE	QUANTITY (Pounds, drums, tons, gallons)
None known	200 tons/yr

*Use additional sheets if more space is needed.

Name of Current Owner of Site: Dunlop Tire & Rubber
Address of Current Owner of Site: _____

Time Period Site Was Used for Hazardous Waste Disposal:
_____, 1923 To Present, 19___

Is site Active [XX] Inactive [ ]
(Site is inactive if hazardous wastes were disposed of at this site and site was closed prior to August 25, 1979)

Types of Samples: Air [ ] Groundwater [ ] None [X]
Surface Water [ ] Soil [ ]

Remedial Action: Proposed [ ] Under Design [ ]
In Progress [ ] Completed [ ]
Nature of Action:

Status of Legal Action: _____ State [ ] Federal [ ]

Permits Issued: Federal [ ] Local Government [ ] SPDES [ ]
Solid Waste [ ] Mined Land [ ] Wetlands [ ] Other [ ]

Assessment of Environmental Problems:

No toxic materials on site.

Assessment of Health Problems:

No apparent health hazard.

Persons Completing this Form:

W.G. Hartenstein
G. D. Knowles

New York State Department of Environmental Conservation
Date April 15, 1980

Ronald Tramontano

New York State Department of Health
Date April 15, 1980

1/18/80
CDK:cl