AUG 0 2 1989

Raymond E. Lupe, Chief
Central Remedial Projects Section
Division of Hazardous Waste Remediation
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233-7010

Re: BEC Trucking Superfund Site
Vestal, Broome County, New York

Dear Mr. Lupe:

Enclosed for your information and distribution are four copies of the final Proposed Plan, dated July 1989, for the BEC Trucking Site in Vestal, New York. The final Proposed Plan highlights the RI/FS reports, provides a brief analysis of remedial alternatives, identifies the preferred alternative, and provides the public with information on how it can participate in the remedy selection process.

As per my discussions with Mr. Mark Kauffman, of your office, and others from the Department of Environmental Conservation and the Department of Health, the final Proposed Plan incorporates a discussion of a proposed monitoring plan for the No Further Action Alternative. This proposed monitoring plan will be further addressed after the Record of Decision.

Also enclosed are two copies of an addendum to the Remedial Investigation report, which includes the Wetlands Delineation and the Stage IA Cultural Resources Survey for the site.

AUG 7 1989

Thank you for your time and consideration in this matter. If you have any further questions or comments on the Proposed Plan or any aspect of the Remedial Investigation/Feasibility Study, please contact me at (212) 264-9589.

Sincerely yours,

Damian J. Duda
Remedial Project Manager
New York/Caribbean Remedial Action Branch

Enclosure

cc: Ron Tramontano, NYSDOH (w/enclosure)
James Colquhoun, NYSDEC (w/enclosure)
Arthur Fossa, NYSDEC (w/enclosure)
Joseph Kelleher, NYSDEC (w/enclosure)
Ron Heerkens, NYSDOH (w/enclosure)
Charles Branagh, NYSDEC (w/enclosure)
Joseph Slack, NYSDEC
Tom Male, NYSDEC

EPA WORK ASSIGNMENT NUMBER: 181-2LZ9
CONTRACT NUMBER: 68-01-7250
EBASCO SERVICES INCORPORATED

ADDENDUM TO THE FINAL REMEDIAL INVESTIGATION REPORT (JUNE 1989)

W.A. NO. 181-2LZ9

BEC TRUCKING SITE
VESTAL, NEW YORK
JULY 1989

APPENDIX I

REPORT OF STAGE 1A CULTURAL RESOURCES SURVEY

REPORT OF STAGE 1A
CULTURAL RESOURCES SURVEY
BEC TRUCKING SITE
TOWN OF VESTAL, BROOME COUNTY
NEW YORK
JUNE 1989

Prepared by Stuart Fiedel, Ph.D.

under supervision of Joel Klein, Ph.D.

REPORT OF STAGE 1A CULTURAL RESOURCES SURVEY, BEC TRUCKING SITE, TOWN OF VESTAL, BROOME COUNTY, NEW YORK

1.0 Introduction

This Stage 1A cultural resources survey was conducted to collect information necessary to assist EPA in complying with their responsibilities under Section 106 of the National Historic Preservation Act. The purpose of the survey was to determine a) if any previously recorded historic properties are located in the project area or its associated impact area; b) if prior land use activities have resulted in destruction of the potential for presence of historic properties, and c) if there is a potential for previously unrecorded historic properties to be present on site or to be affected by project-related activities. The two principal components of the 1A study were: 1) documentary and cartographic research and 2) an on-site walkover reconnaissance.

2.0 Background

The BEC Trucking Site is an open lot of approximately 3.5 acres located in the Town of Vestal, Broome County, New York (Figure 1). The site is bordered by Stewart Road to the south, a petroleum tank farm to the east, a trailer park to the west, and open lots to the north (Figure 2).

The site is currently used as an open storage\dump facility by the owner, a construction contractor. Prior to the mid-1960s, the site was an unimproved marshland property owned by the Stewart family. The land was sold to Haial Trucking, which later became BEC Trucking. Haial proceeded to fill the marshland, and used the site to store trucks and tankers. BEC routinely stored drums containing waste oil and other liquid wastes on the site. The company went bankrupt in 1981. In 1982, the Town of Vestal found evidence of illegal dumping and improper storage of drums on-site. An inspection by NYSDEC in 1982 revealed the presence of some 50 drums, 20 of which contained liquid wastes. A zone of spillage was noted in the vicinity of these drums. Four additional drums and some spillage were found in the marsh on the western side of the property. In 1983, NYSDEC requested that the site be placed on the National Priorities (Superfund) List (NPL).

3.0 Results of Documentary Research

3.1 Prehistory

Numerous prehistoric sites have been recorded in the Vestal area.

They are located almost exclusively in the floodplains of the Susquehanna and Choconut Creek. No Paleo-Indian material (ca. 9500-8000 BC) has been found here, although Ritchie (1965) did note the presence of fossil Pleistocene megafauna in Vestal. Funk and Wellman (1984) have recently reported several stratified sites in the upper Susquehanna floodplain, between Sidney and Emmons, that yielded Early and Middle Archaic lithic artifacts (dating from 8000 to 4000 BC). However, the earliest sites in the Vestal area proper date from 4000 to 1000 BC, the Late Archaic period. Late Archaic components are known from Meadow Lane (SUBi-558), Ross Hill (SUBi-559), Nursery (SUBi-285) and Castle Gardens (SUBi-347); all of these sites lie on the south side of the Susquehanna, about three miles west of the BEC Trucking site. Several sites in the Vestal area were occupied in the Woodland period, 1000 BC to AD 1600. Most of the material is of Late Woodland date, AD 900 to 1600. The Willow Point site (SUBi-200) lies on the south side of the Susquehanna, about one mile north of the project site. Three Late Woodland components have been identified here. The site has been largely destroyed by gravel operations (Quilty and Versaggi 1979). Apart from this site, which corresponds to SHPO numbers A007-15-0011, 0012, and 0013, no other prehistoric sites lying within one mile of the project site are listed in the files of New York SHPO or the State Museum.

The State Museum indicates that the site has a "mixed probability of producing prehistoric archaeological data", which "is based on the assumed presence of intact original deposits, possibly under fill, in the area" (B. Wellman, New York State Museum, letter of May 22, 1989).

3.2 History

After the defeat of the local Iroquois in the Revolutionary War, white settlers began to colonize the upper Susquehanna in the 1780s. A group of Philadelphia investors, including William Bingham, purchased tracts of river valley land. Present day Vestal was part of Bingham's patent. Because of insecurity of tenure on Bingham's lands, squatters initially avoided his property, settling instead on the west bank of the Chenango. By 1802, Bingham's land agent, Joshua Whitney, had succeeded in attracting settlers to a new hamlet on the east bank, called Chenango Point. This hamlet was the nucleus of present day Binghamton. While Binghamton grew in the 19th century, spurred by commercial and industrial development, the area to the west remained rural and agricultural (Quilty and Versaggi 1979). The town of Vestal was established in 1823 (Avery 1973). The Chenango Canal, linking Utica and Binghamton, was completed in 1837. In 1838, legislation was passed to extend the canal from its Binghamton terminus to the New York State line near Tioga Point, at the terminus of Pennsylvania's North Branch Canal. The extension was

substantially completed by the time the Canal was abandoned (1875), but was never used. The extension followed the course of the Susquehanna, passing about one mile north of the BEC site. In 1976, the canal extension was found to be ineligible for National Register status. The 1855 Gifford and Wenig map of Broome County shows the project area as lying just west of the house of one John Willis. The Sanborn maps of 1887, 1898 and 1902 did not include the project area, which was still rural and undeveloped. The 1888 Gifford map of the project area is virtually identical to the 1855 map.

Examination of files in the New York State Historic Preservation Office showed that there are no sites located within one mile of the project area, which are on or declared eligible for the National Register of Historic Places. The nearest National Register sites are located in Binghamton: South Washington St. Bridge, Roberson mansion, City Hall, County courthouse, Christ Church, and the Phelps house.

3.3 Previous Investigations

As part of the Remedial Investigation of the BEC Trucking Site, nine test borings were excavated by Rochester Drilling in August, 1988 (Figure 3). Test Pit 1, located in the west-central portion of the site, encountered a fill layer, composed of silt, sand and gravel, down to 1.5 feet below the surface. Underlying this was a layer of fly ash fill, extending down to at least four feet, where a large metal object was found. Test Pit 2, in the southeastern corner of the site, revealed the same fill strata, at roughly the same depths. Between 4.5 and 8.0 feet, this test showed large roots, stumps, and pieces of decaying trees. Sharp basal contact with natural soil occurred at 8.0 feet. In nearby Test Pit 3, the contact between the organic stratum and the natural soil (an olive gray clay) occurred at 6.0 feet. The water table was hit at 10.0 feet. Test Pit 4, centrally located, showed fill, with pieces of metal, brick, and wood, to a depth of 4.0 feet. In Test Pit 7, near the northern edge of the terrace, the sandy fill extended to a depth of 4.5 feet, where a large metal object was encountered. In Test Pit 8, on the edge of the drainage ditch, scrap metal was discovered at 4.0 feet; natural clay, containing some organic matter, lay below 4.5 feet. In Test Pit 9, scrap metal occurred at 5.0 feet. To summarize: Test borings document extensive filling, incorporating construction debris, imported soil, and fly ash in the southern part of the site, down to a depth of 4 to 5 feet. Remnants of marsh vegetation occur in some areas at a depth of 4.5 to 8 feet, and the natural clay subsoil occurs at a depth of 6 to 8 feet. (Boring log data are from Appendix C, USEPA 1989).

4.0 Results of Walkover Reconnaissance

Two EBASCO archeologists visited the site on May 15, 1989. Inspection of the site surface tended to confirm the description contained in the RI/FS final work plan (USEPA 1988) and other EPA documents. The site consists primarily of an artificial terrace, rising about 10 feet above surrounding marshland, and bordered on three sides by a drainage ditch. Bulldozed construction debris litters the fairly steep slopes of the terrace. The imported silty sand fill that comprises the central portion of the site, is visible along the escarpments of the terrace. Some of the rather steep slope on the northern edge of the site may consist of natural, not fill deposits, but it has evidently been much disturbed by frequent dumping of construction debris. A sign advising of the presence of a subterranean petroleum pipeline stands near the northeastern corner of the site. Analysis of topographic maps indicates that there are two buried oil pipelines beneath the site, one running north-south on the western side, and another running east-west on the northern side. The sign denotes the east-west line. No prehistoric or historic material was observed on the surface of the terrace, the drainage ditch, or adjacent marshland.

5.0 Conclusions and Recommendations

Documentary and cartographic research produced no evidence of prehistoric or potentially significant historic occupation of the BEC Trucking Site. The present character of the site is reportedly the product of extensive filling in the 1960s; examination of boring logs, and observations made during the walkover survey verified this. Prior to filling, the area was probably a poorly drained wetland, not conducive to occupation. Given this topography, and the general absence of recorded sites so far away from the river, the likelihood of finding prehistoric sites here is very slim. Furthermore, the property has obviously been so extensively modified and disturbed that there is virtually no possibility that intact prehistoric sites could still exist there, at least on or near (to a depth of 5.0 feet) the present surface. Nevertheless, there is a remote possibility that sites may exist beneath the deep fill deposits. If so, such sites will not be affected if remedial measures do not cause disturbance of the original ground surface, which lies some six to eight feet below the present surface. In this case, such activities would not directly affect significant historic properties. However, if the remedial measures should extend to a depth that will reach the natural surface, there might be some effect on as yet undiscovered cultural resources. It is therefore recommended that no further cultural resource investigations be conducted, contingent upon the restriction of remedial actions to the uppermost five feet of the terrace.

References

Avery, G. F.
1973 The Town of Vestal 1823, 1973. Vail-Ballou Press, Vestal.

Funk, R. E. and B. Wellman
1984 Evidence of early Holocene occupations in the upper Susquehanna Valley, New York State. Archaeology of Eastern North America 12:81-109.

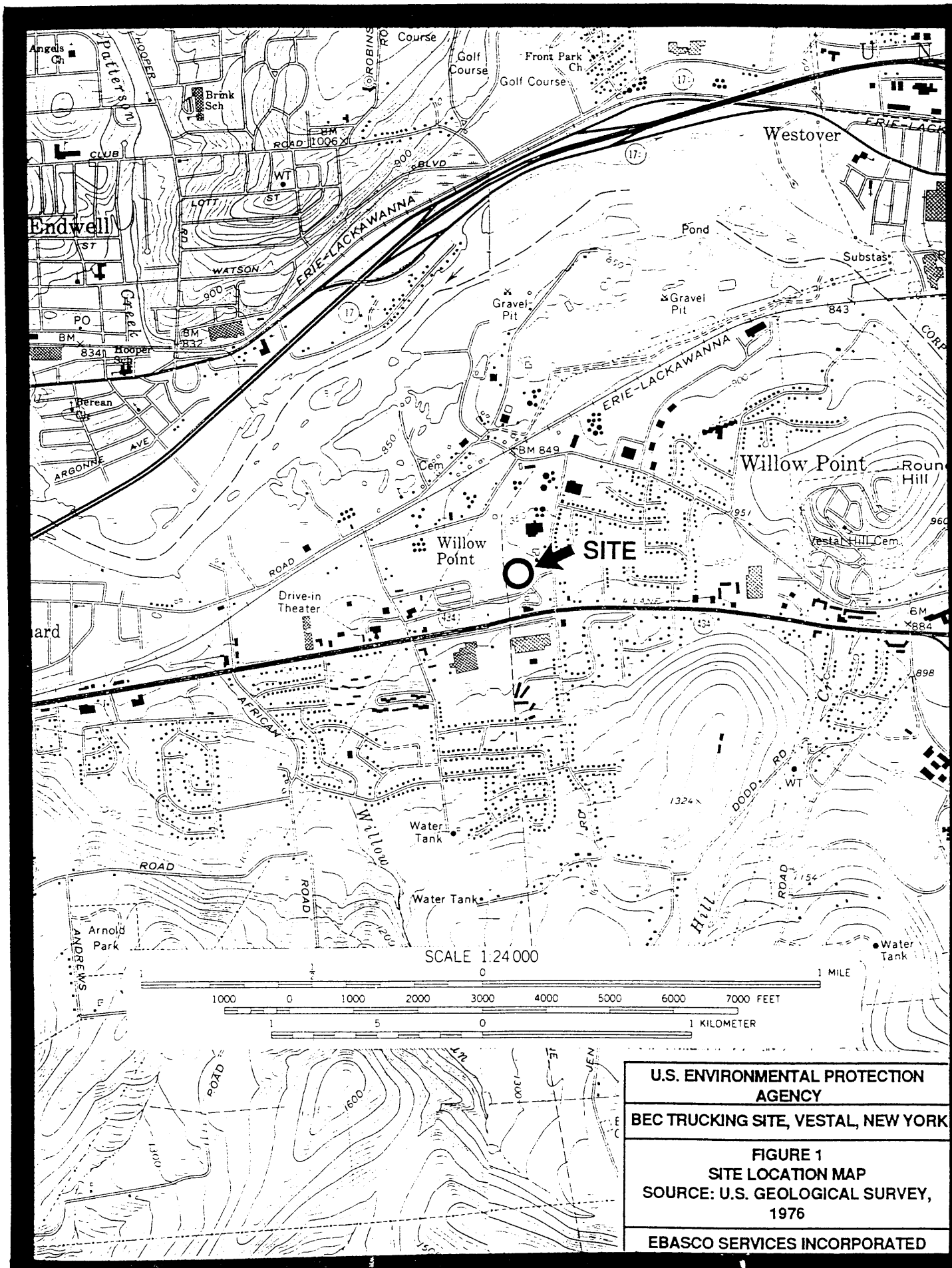
Gifford, F. and E. Wenig
1855 Map of Broome County. Gallop and Co.

Quilty, K. and N. M. Versaggi
1979 Binghamton 201 facilities plan cultural resources reconnaissance survey. Ms. on file, NYSHPO, Albany.

Ritchie, W. A.
1965 The Archaeology of New York State. Natural History Press, Garden City, New York.

USEPA
1988 Final work plan remedial investigation/feasibility study, BEC Trucking site, Vestal, New York. REM III Program.

1989 Draft remedial investigation report, BEC Trucking site, Vestal, New York. REM III Program.

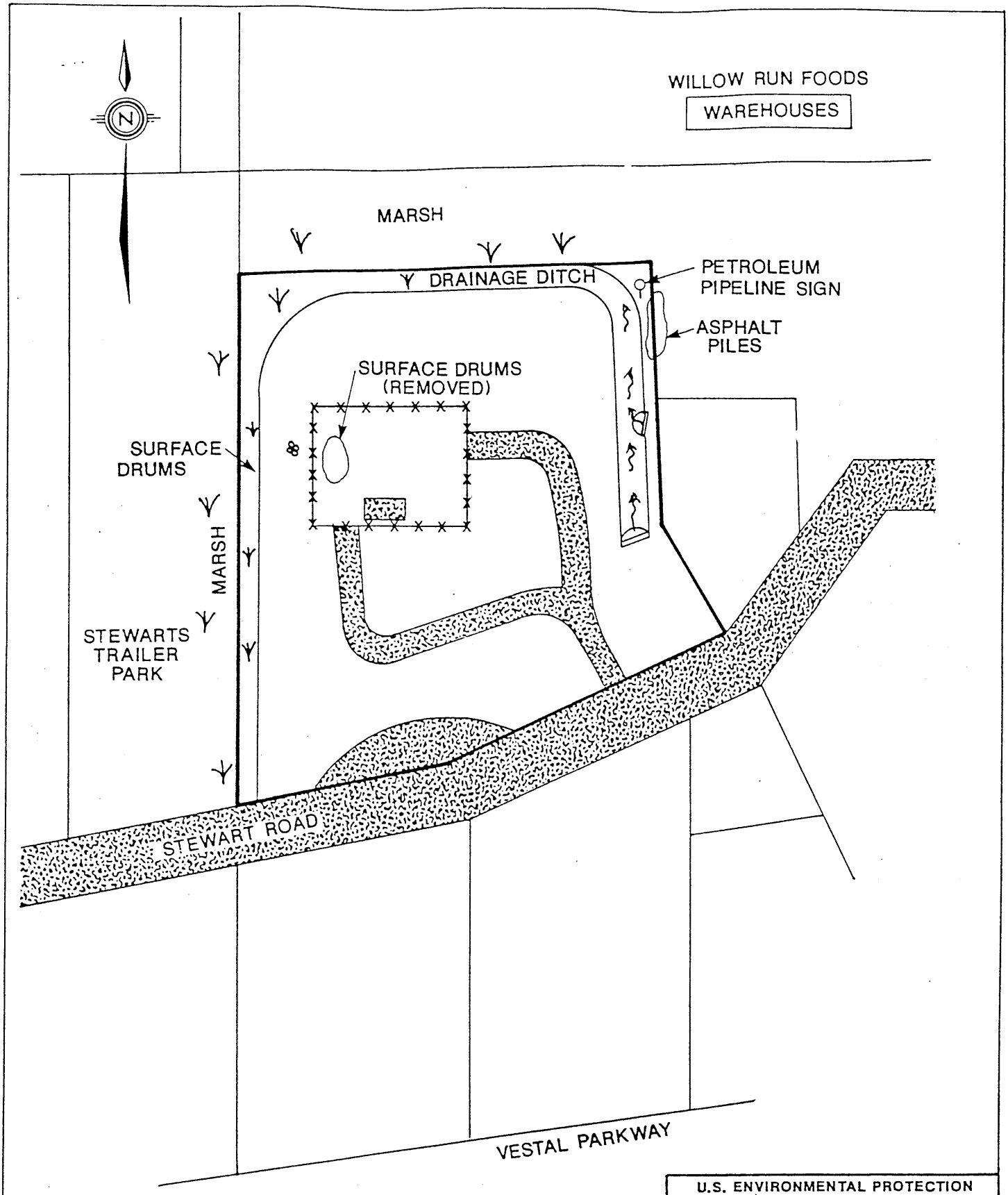


U.S. ENVIRONMENTAL PROTECTION AGENCY

BEC TRUCKING SITE, VESTAL, NEW YORK

FIGURE 1
SITE LOCATION MAP
SOURCE: U.S. GEOLOGICAL SURVEY, 1976

EBASCO SERVICES INCORPORATED



U.S. ENVIRONMENTAL PROTECTION AGENCY
BEC TRUCKING SITE, VESTAL, NEW YORK
FIGURE 2 GENERALIZED MAP OF THE BEC TRUCKING SITE
EBASCO SERVICES INCORPORATED

U.S. ENVIRONMENTAL PROTECTION AGENCY
BEC TRUCKING SITE
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

EBASCO SERVICES INCORPORATED

SITE MAP WITH SAMPLE LOCATIONS AND GRID

FIGURE 3

APPENDIX J

WETLAND DELINEATION REPORT

Wetland Delineation
BEC Trucking, Vestal, New York

Prepared for

David W. Charters, Ph.D.
Environmental Response Branch
Edison, New Jersey 08837

Prepared by

Richard Henry
REAC/Roy F. Weston, Inc.

JULY 1989

TABLE OF CONTENTS

LIST OF FIGURES

eh:rd/HENRY/FR-1266

1.0 INTRODUCTION

1.1 Site Background

The BEC (Binghamton Equipment Company) Trucking Site is approximately 3.5 acres and is located in the Town of Vestal, Broome County, New York (Figure 1). Existing information indicates that the site was a wetland prior to development. In the mid-1960's, a truck maintenance and fabrication facility was established on the property. This entailed importing approximately 5 to 10 feet of fill to bring the pre-existing grade to the present height.

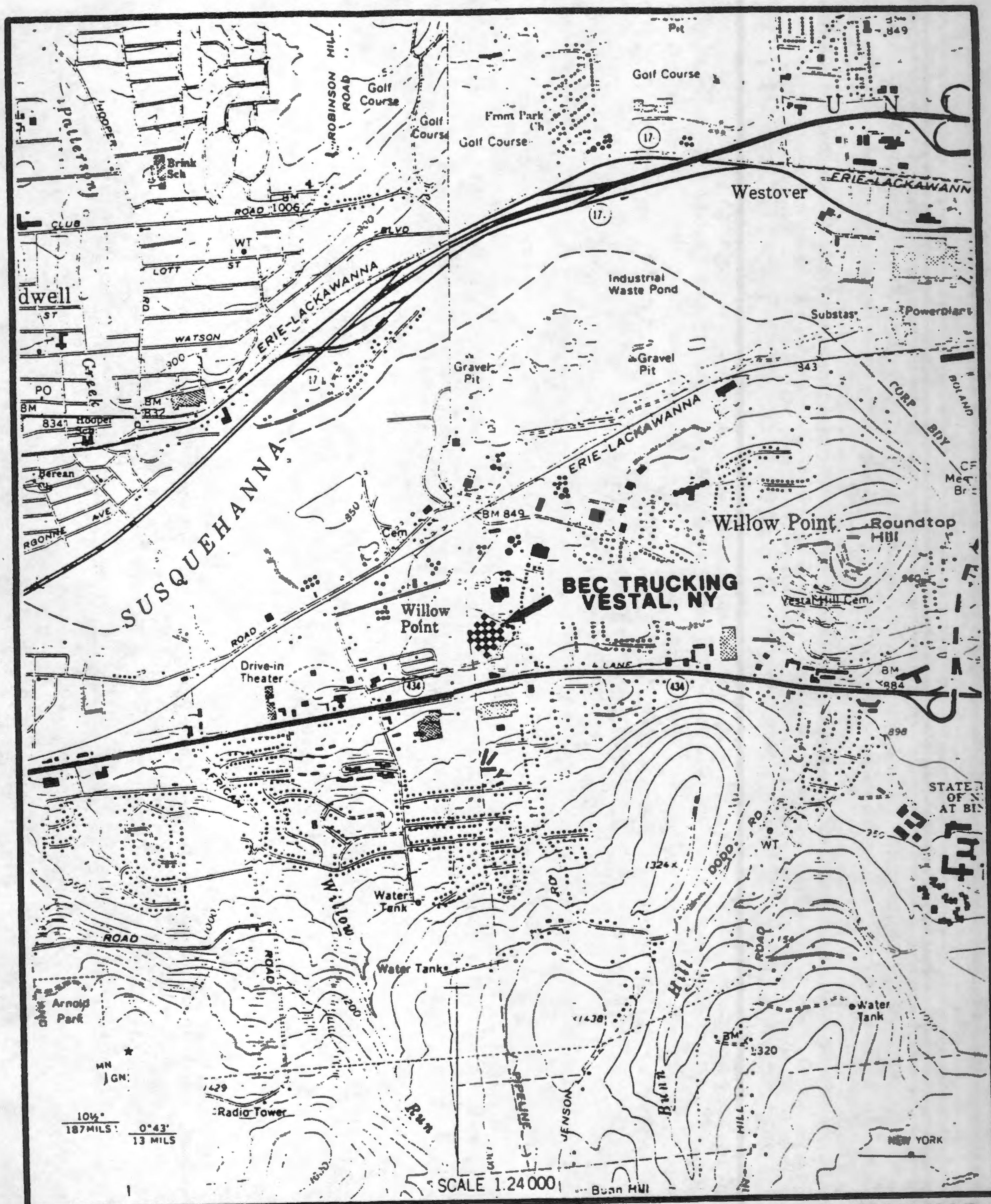
Evidence of improper storage and disposal of debris and drums of petroleum and chemical products was detected in 1982 by the NY Department of Environmental Conservation (NY DEC). Subsequent investigation revealed the presence of approximately 50 drums; 20 contained what appeared to be waste engine or cutting oil, paint thinner, and waste solvent. Several drums were marked with Department of Transportation "Hazardous" labels identifying the contents as methanol, toluene, and petroleum distillates. Additional information from the NY DEC indicates that effluent from the steam cleaning of chemical tankers may have been disposed of improperly on the site. Remediation to date has consisted of the removal of the drums and the excavation of approximately one cubic yard of contaminated soil.

1.2 Objective

The objective of this investigation was to identify, delineate, and flag the borders of wetlands that exist on and adjacent to the BEC Trucking Site. The information may be utilized by the US Environmental Protection Agency (US EPA) to assess the impacts that proposed remedial activities may have on wetland resources. Additionally, identification of and coordination with the appropriate regulatory and advisory agencies can be established prior to the initiation of such activities.

1.3 Regulatory Framework

Federally regulated wetlands are identified by the multiparameter approach promulgated in 1989 by the Federal Interagency Committee for Wetland Delineation, wherein all three of the following criteria must be present for an area to be considered a wetland: 1) the appropriate surface hydrology (a certain degree of flooding or soil saturation); 2) the predominance of wetland vegetation (hydrophytes) during some portion of the growing season; and 3) the presence of hydric soils (soils that are for a portion of the year are saturated to the extent that free oxygen is not available to plant roots). For purposes of administering Section 404 of the Clean Water Act, the US Army Corps of Engineers (US ACOE) defines wetlands as:



US EPA ENVIRONMENTAL RESPONSE TEAM

RESPONSE ENGINEERING AND ANALYTICAL CONTRACT
68-03-3482

FIGURE 1. SITE LOCATION MAP

WA # 3347-01-01-1266	BEC TRUCKING VESTAL, NY

> Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (Federal Register, Vol. 42, page 37128, 40 CFR 230.3, and 33 CFR 328.3).

Areas that possess wetland characteristics but are lacking in one or more wetland indicators may fall under Federal jurisdiction as "Waters of the United States". It is necessary to determine if natural events or human activities have resulted in changes that are now "normal circumstances" and an area is functioning as a wetland.

The NY DEC Freshwater Wetlands Act (Article 24 and Title 23 of Article 71 of the Environmental Conservation Law) defines and regulates wetlands on the basis of characteristic vegetation. This definition includes areas greater than 12.4 acres that support wetland vegetation, or wetlands less than 12.4 acres in size that are of unusual local importance. The NY DEC has published maps identifying regulated wetlands. Furthermore, the NY DEC ranks these wetlands into one of four classes. Inclusion into a particular class is based on the relative value that a wetland may provide with respect to functional values and benefits. Class I wetlands provide the most functions and benefits whereas Class IV wetlands provide the fewest.

The Town of Vestal defines and regulates wetlands on the basis of characteristic vegetation (Town of Vestal, Local Law No. 13, Chapter 43, Section 43-4). As permitted by the State of New York (Article 24, Title 5, Section 24-0501 of the Environmental Conservation Law), the definition of a locally regulated wetland is identical to that promulgated by the NY DEC with the exception of size; the Town of Vestal regulates wetlands less than 12.4 acres in size. Additionally, the town regulates activities that occur within 100 feet, measured horizontally, of the boundary of a wetland. Freshwater wetlands regulated by the Town of Vestal are delineated on a wetland map pursuant to Section 24-0301 of the State Environmental Conservation Law. If any provisions of the local law are in conflict with any law of the State of New York pertaining to wetlands, the provisions of the more protective law apply.

2.0 METHODOLOGY

The site under investigation consists of the land formerly known as Haial Trucking Company, and more recently, BEC Trucking Company, successor to Haial. The study area consists of this site and portions of adjacent properties as required to determine local and regional hydrological patterns.

Data pertaining to characteristics of the vegetation, hydrology, and soils of the BEC Trucking Site was collected to facilitate the

wetland assessment and delineation. Prior to the field activities, existing documentation was gathered and reviewed. This included the soil survey of Broome County, USGS Topographic Maps, and Wetland Maps. Field activities included ground truthing existing data, and identifying and delineating wetlands according to site specific conditions.

The wetland delineation followed the multiparameter approach detailed in the Federal Manual for Delineating Jurisdictional Wetlands (1989), wherein all three of the following criteria must be present for an area to be considered a wetland: 1) the appropriate surface hydrology; 2) the predominance of wetland vegetation; and 3) the presence of hydric soils. The utilization of this approach encompassed wetland definitions of all applicable regulatory agencies and therefore identified wetlands regulated by local and state authorities as well as Federal authorities.

Prior to field activities, the following information was gathered and reviewed:

1. The Binghamton West and Endicott USGS Quadrangle Maps (scale = 1:24000).
2. Wetland Maps published by the NY Department of Environmental Conservation (Oct. 3, 1984; Binghamton West Quadrangle).
3. Plant database, Appendix C, Section 1, National List of Plant Species that Occur in Wetlands, Region 1, Northeast (US ACOE Technical Report Y-87-1).
4. Soil Survey of Broome County issued in March 1971 by the US Department of Agriculture Soil Conservation Service (USDA SCS).
5. Flood Insurance Rate Map, Town of Vestal, Broome County, NY, panel 360057-0015D.

A wetland reconnaissance and delineation was conducted on May 2, 1989. Data pertaining to the characteristics of the vegetation, soil and hydrology were collected. Major vegetative communities were identified and the species composition determined. Soils were collected with a hand auger and described using Munsell Soil Color Charts. The Munsell notation for color consists of separate identifiers for hue, value and chroma, which are combined in that order to form the color designation (Munsell Soil Color Chart, 1985). The Munsell soil color designations are reported in this document following the color name. This permits a greater degree of precision than would otherwise be allowed by the use of soil color names alone. Because soils on and adjacent to the site are potentially contaminated, textural characteristics of the soils were not described. Textural descriptors included herein are from the literature and gross visual observation of particle size. Indicators of local and regional hydrology were noted. An onsite wetland determination was performed and consisted of the procedures identified in sections 4.9 through 4.11 and 4.21 through 4.23 in the Federal Manual for Delineating Jurisdictional Wetlands (1989). The wetland(s) were identified and the boundary(s) delineated and flagged with wooden surveyor stakes.

3.0 RESULTS

3.1 Summary of Existing Mapping

Soils of the study area are part of the Chenango-Howard-Unadilla association and the Volusia-Mardin association (USDA SCS, 1971) and are depicted in Figure 2. An association is a landscape that normally consists of a distinctive proportional pattern of two or more major soils and at least one minor soil. Included in the former association are the Chenango and Wayland soil series, and the Volusia soil series is included in the latter association. A soil series is a group of soils developed from a particular type of parent material and having genetic horizons that, except for the texture of the surface layer, are similar in differentiating characteristics and in arrangement of the surface layer. A small portion of the southeastern corner of the site is mapped as the Chenango soil series. These soils occur with Howard and Mardin soils and have been mapped with them in Broome County. This mapping unit consists of relatively shallow, well drained soils formed from glacial outwash overlaying a substratum of sandy, gravel.

The southern portion of the site has been mapped by the USDA SCS as Volusia channery silt loams, with 8 to 15 percent slopes. The mapping unit consists of deep, strongly acid, somewhat poorly drained loamy soils, that formed on uplands from very firm, dense glacial till. A dense, slowly permeable fragipan is present in the subsoil that restricts vertical water movement and results in seasonal wetness. The Volusia series typically has a very dark grayish brown silt loam surface overlaying a mottled olive brown substratum. The Volusia series has been listed by the USDA SCS classification system as a soil that displays hydric conditions in some places, but field verification is needed.

The northern portion of the site is mapped as the Wayland soil series with 0 to 3 percent slopes. This mapping unit consists of deep, poorly drained and somewhat poorly drained soils that formed on flood plains in slightly acid alluvial sediments. Due to their position in the landscape, Wayland soils are generally flooded in the spring and during portions of the growing season if prolonged rains occur. Typically these soils have a very dark grayish brown silt loam surface layer, with indistinct yellowish brown mottles. The substratum is dark gray silt loam with many fine distinct yellowish brown mottles. Hydric soils have been defined by the USDA SCS as soil that is either 1) saturated at or near the soil surface with water that is virtually lacking free oxygen for significant periods during the growing season, or 2) flooded frequently for long periods during the growing season. This definition identifies soils that support the growth of hydrophytes or wetland vegetation. According to the preliminary list of hydric soils of Broome County and the national list of hydric soils developed by the

US EPA ENVIRONMENTAL RESPONSE TEAM

RESPONSE ENGINEERING AND ANALYTICAL CONTRACT
68-03-3482

FIGURE 2. SOIL MAP

WA # 3347-01-01-1268

BEC TRUCKING
VESTAL, NY

USDA SCS, the Wayland series are the only soils classified as hydric within the study area (Soil Survey of Broom County, sheet 60, 1971).

The National Wetlands Inventory Project was established in 1974 to generate and disseminate information on the characteristics and extent of the Nation's wetlands. A product of this project are the National Wetland Inventory (NWI) Maps prepared by the US Fish and Wildlife Service (US FWS). The NY DEC has also initiated a wetland mapping program as per the requirements of Article 24, Title 3, Section 24-0301 of the NY Freshwater Wetlands Act. Wetland maps are prepared by stereoscopic interpretation of high altitude aerial photography (scale 1 = 80,000) for hydrophytic vegetation, visible hydrology, and geology. The aerial photos typically reflect conditions during the time period they were taken. As such, there is a margin of error inherent in the use of photographs. Thus, a detailed literature search and site investigation may result in a revision of the wetland boundaries established through aerial photo interpretation. In addition, some small wetlands and those obscured by dense vegetation may not be included in the mapping. Although the US FWS maps for Broome County have not been published, the NY DEC maps (Binghamton West NY DEC Freshwater Wetland Quadrangle dated October 3, 1984) indicate that no state regulated wetlands are on or in the vicinity of the site. Additionally, no wetlands regulated by the Town of Vestal were indicated on these maps.

The Flood Insurance Rate Map prepared by the National Flood Insurance Program for the Town of Vestal identifies areas within the 100 and 500 year flood zones. The BEC Trucking Site is located outside the areas delineated by the 100 and 500 year flood zones, and is classified as Zone C, an area of minimal flooding on the Flood Insurance Rate Map dated September 5, 1984.

3.2 Existing Site Conditions

The BEC Trucking Site is located on Stewart Road in the Town of Vestal NY, and is designated as lot 23-S31 and 23-S32, Block 17-5A on the Town of Vestal Tax Map (November 13, 1986). It is bordered by Stewart Road to the south and a petroleum tank farm (Kay Terminals) to the north and east. The land west and northwest of the site is owned by Stewart Trailer Park, however the area immediately adjacent to the site is vacant.

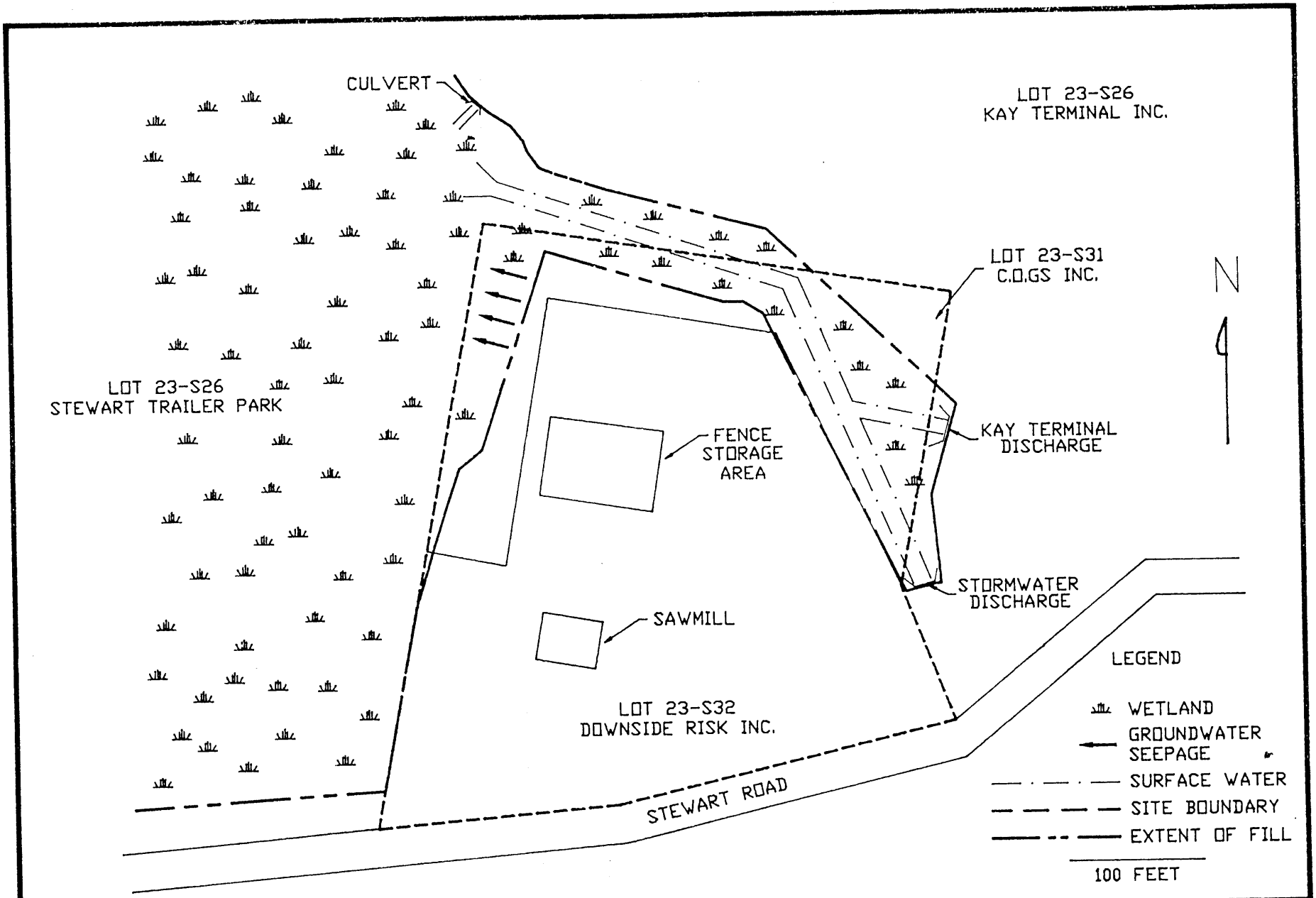
A vast majority of the site consists of relatively flat, open terrain. A small structure housing an active sawmill is located in the south central portion of the site. Piles of timbers and rough cut lumber utilized for fence construction were scattered around this area. Several vehicles and trailers were parked along the periphery of the site. Fencing materials including

iron pipe and chain link fence were stored in the northwest quarter. Numerous empty drums and other construction debris were scattered throughout the site, particularly in the northern half.

Local topography reflects development that has reshaped and generally raised surface elevations throughout the area. As a result of the addition of fill material, most of the site is roughly 3 to 5 feet above the original grade. Surrounding properties, including Kay Terminals, Stewart Road and Stewarts Trailer Park also imported fill materials prior to development and are at similar or higher elevations. The area immediately west and northwest of the site is undeveloped and at the original grade. Remnants of predevelopment topography were evident in the lowlying area situated between the site and Stewarts Trailer Park.

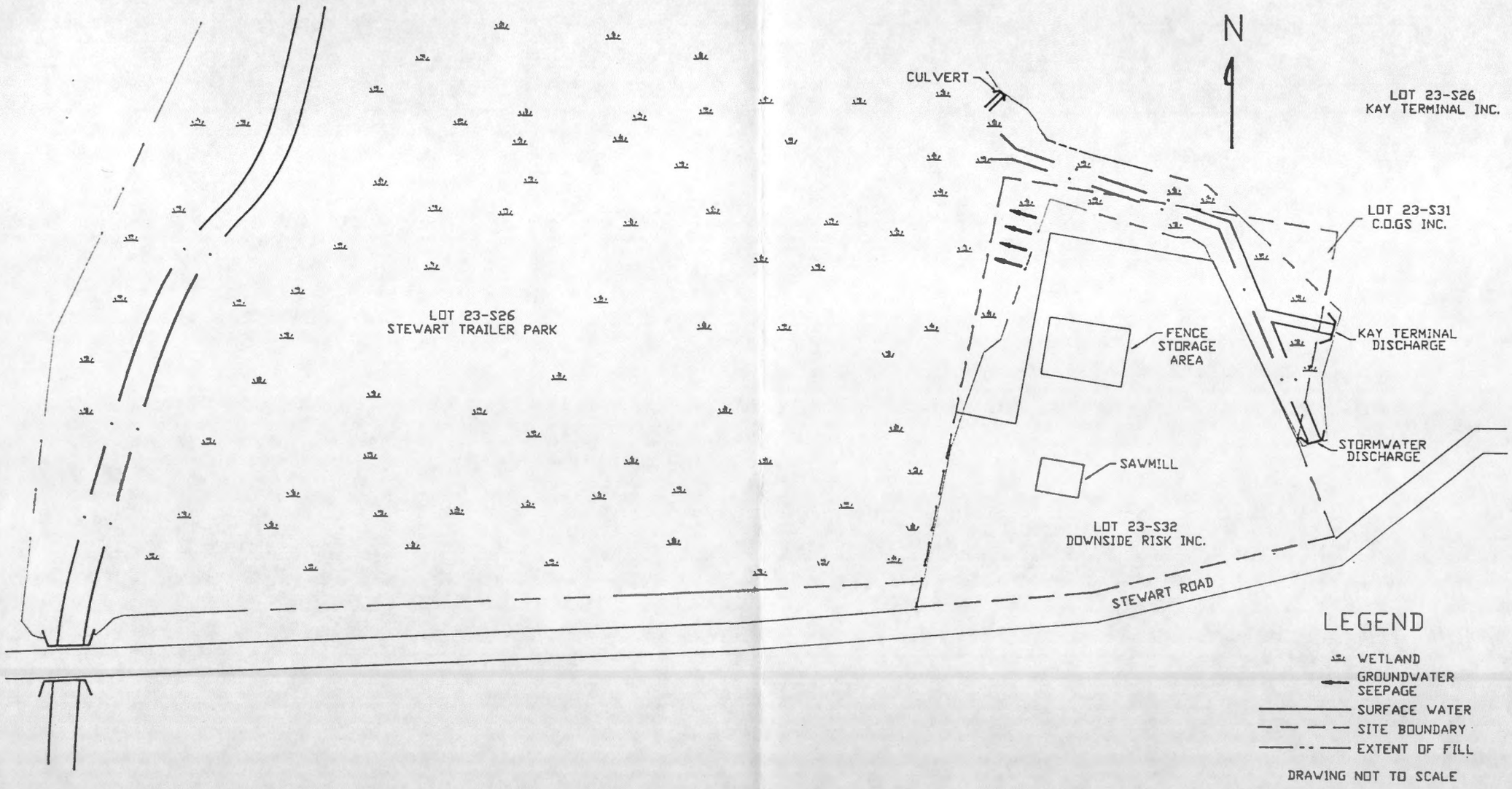
Surface hydrology of the area is strongly influenced by the changes in landscape configuration resulting from development. Generally, surface water in the region flows in a north to northwestern direction, ultimately draining into the Susquehanna River. An unnamed stream originating southwest of the site drains into the lowlying area situated between Stewarts Trailer Park and the site (Figure 3). The stream channel is approximately three feet wide and eight inches in depth. Highway runoff from Vestal Parkway and other paved surfaces southeast of the site are transported through subsurface culverts that coalesce near the southeast corner of the site. These empty into the drainage ditch that originates along the eastern site boundary and traverses the eastern and northern site perimeters. Two additional culverts discharge to the drainage ditch adjacent to the northwest and northeast corners of the site. The ditch drains into the adjacent lowland area near the northwest corner of the site where the channel becomes poorly defined and the flow diffuses. Groundwater was observed discharging from the toe of slope along the extent of fill on the west side of the site. Standing water present in the lowland area ranged from several to 18 inches. The filled portion of the site is fairly level and surface drainage pathways are not well defined. Downward percolation through the porous fill materials are most likely the dominant transport pathway for rainwater.

The fill material imported to the site consists of hard packed brown silty sand mixed with gravel overlaying a substratum consisting primarily of fly ash (personal communication, Gary Campo, Town of Vestal Engineer). Because field work for the soil survey was conducted in the period 1958 through 1964, characteristics of the natural soils are known. As mapped, the southern portion of the site is underlain by Volusia silt loam and the northern portion by Wayland silt loam.



US EPA ENVIRONMENTAL RESPONSE TEAM
RESPONSE ENGINEERING AND ANALYTICAL CONTRACT
68-03-3482
W.O. No. 3347-01-01-1266

FIGURE 3. WETLAND MAP
BEC TRUCKING SITE
VESTAL, NY
MAY 2, 1989



US ENVIRONMENTAL RESPONSE TEAM

RESPONSE ENGINEERING AND ANALYTICAL CONTRACT
68-03-3482

FIGURE 3. WETLAND MAP

W.O. No. 3347-01-01-1266

BEC TRUCKING SITE, VESTAL, NY

Field work confirmed the presence of Wayland soils in the lowlying area west of the fill. Soils adjacent to the northeast corner of the site consist of a surface layer of very dark gray (10YR 3/1) soil over a mixture of very dark grayish brown (10YR 3/2) to very dark gray (10YR 3/1) soil with fine yellowish brown (10YR 6/6) mottles. Soils adjacent to the southeastern extent of fill were not consistent with the typical profile of Volusia silt loam. Soils observed consisted of a surface layer of dark gray soil (N 4/0) with faint yellowish brown (10YR 5/6) mottles over dark yellowish brown (10YR 4/4) soil.

Soil in the lowlying area west of the BEC Trucking Site were examined for the presence of hydric indicators. In the north central portion of this property, the soils were generally similar with those described above for the northeast corner of the BEC Trucking Site. Surface soils consisted of very dark grayish brown (10YR 3/2) soil with faint dark yellowish brown (10YR 4/6) mottles. Although the soil profile in the south central portion of the adjacent property was disturbed, it displayed upland characteristics. Surface soils generally consisted of dark yellowish brown (2.5Y 4/4) soil interspersed with light brown sand and gravel. This most likely reflects the placement of fill associated with the construction of Stewart Road. Soils examined in the drainage ditch east and west of the site consist of a light gray coarse sand. This material most likely originates from areas of higher elevation, and has been transported to the site through the Town of Vestal storm water collection system described above.

The composition of the vegetative communities observed are largely dependent on the degree of past and present disturbance. The filled portion of the site is dryer as a result of improved drainage, and there is a high level of human activity and vehicular traffic associated with the sawmill and fencing operations. Additionally, the unsuitability of the fill as a substrate has excluded most vegetative species. Present along the periphery of the fill are goldenrod, common mullen, teasel, asters, common yarrow and various grasses. Along the northern periphery of the site where disturbance has not occurred in recent times, a vegetative community dominated by staghorn sumac is present. Beneath this canopy, are snakeroot, Japanese knot weed, and brambles. Red maple is also present, particularly along the edge of fill where wetter conditions exist.

The undisturbed portion of the BEC Trucking Site and the adjacent site are vegetated with a lowland hardwood swamp typical of a forested flat. Red maple dominates this stand and is associated with ash, tuliptree, and black birch. The understory contains ironwood and witch hazel while spicebush and arrowwood dominate the shrub layer. The herbaceous layer ranged from thick to relatively sparse and included jewelweed, sweetflag, ferns, and buttercup. Within this forest are areas

where plant establishment is confined to narrow hummocks vegetated with shrubs, sedges and rushes. Although surrounded with water, these hummocks are situated close enough together so that dense thickets are formed. Cattails, marsh marigold, and duckweed were growing in the open water areas.

4.0 CONCLUSIONS

4.1 Wetland Determination

A wetland is present in the northwestern quarter of the BEC Trucking Site and the north central portion of the adjacent property (Figure 3) that fall under jurisdiction of the US ACOE. Approximately 0.48 acres of the 3.49 acre BEC Trucking site are in forested swamp. Historically, the entire site was a wetland possessing the appropriate indicators; the delineation, therefore followed the toe of slope adjacent to the fill. Soils present in the wetland were mottled, and had a matrix chroma of less than two and were classified as hydric. Soils in adjacent uplands were imported fill materials that lacked an organic layer and hydric indicators. Water marks and sediment depositional areas were observed within the lowland forest. These, and the presence of hummocks and raised tree bases, indicate that the area is inundated for at least a portion of the year. The prerequisite proportion of wetland plants were observed permitting a satisfactory delineation of the wetland boundary.

Historically, the south central portion of the adjacent property was most likely an upland area. Presently, however, the appropriate indicators of wetland hydrology and vegetation were observed. A change in historic hydrologic patterns due to development, and the slow permeability of the soils that line the basin, have resulted in periodic flooding sufficient to support a preponderance of hydrophytic vegetation. The soils did not display consistent hydric characteristics, due in part to the parent soil material and the interspersion with fill from the construction of Stewart Road. The appropriate hydrology has not been in existence for a long enough period of time to allow hydric characteristics (i.e. color) to develop in soil. Nevertheless, this area would most likely fall under jurisdiction of the US ACOE as a man-induced wetland. The area is currently functioning as a wetland resulting from relatively recent changes that are now considered "normal circumstances".

According to Wetland Maps published by the NY DEC and the Town of Vestal, there are no wetlands regulated by either authority in the study area. The wetlands identified on and adjacent to the site, however, possess characteristics consistent with the definition contained in the Town of Vestal Local Law Number 13, Chapter 43, Section 43-4. It is likely that misinterpretation of aerial photographs resulted in the omission of this area from

wetland maps. However, it is possible that the wetlands identified on and adjacent to the site would fall under jurisdiction of the Town of Vestal.

4.2 Potential Impacts of Likely Remediation

Remedial activities that may potentially occur on site include well drilling and soil excavation. Associated with these activities are the construction of access roads for heavy equipment. Regulatory constraints aside, road construction and drilling have the potential to impact wetlands. Impacts include filling and dredging in order to construct roadways as well as indiscriminate disposal of drilling muds and spoils. This would result in the loss of a number of wetland functional values including flood storage, groundwater recharge, and nutrient retention. The capacity of the wetland to filter and buffer receiving waters would be lost and runoff would be displaced downgradient thus increasing erosion and flooding potential. Wildlife habitat for resident aquatic and semiaquatic organisms would be lost. Although wetlands can be expected to absorb and/or buffer these impacts, this capacity is limited. Of central concern is that the remedial activities do not result in greater impacts, both on- and off-site, than the contaminants.

4.3 Potential Applicable Permits

The Town of Vestal regulates wetlands, and uplands within 100 feet of a wetland boundary, under the guidelines outlined in Local Law Number 13, Chapter 43, Section 43-5. However, if it can be demonstrated that the proposed remedial activities are part of an actual and ongoing activity that is immediately necessary for the protection and preservation of life or property, or the protection and preservation of natural resource values, the activity may be exempt from regulation. Exempt activities include prevention and remediation related to large scale contamination of streams or other bodies of water. Within five days following the completion of remedial activities the responsible parties are required to notify the Town of Vestal of any activity that otherwise would be treated as a regulated activity requiring a permit.

The US Army Corps of Engineers regulates wetlands under the guidelines outlined in the Federal Register, November 13, 1986, and 33 CFR Parts 320 through 330. If remedial activities occur in or adjacent to wetlands, it must be demonstrated that there are no indirect impacts outside the immediate work area. A nationwide permit is a form of general permit that may authorize activities throughout the nation. They are designed to allow certain activities to occur with little, if any, delay or paperwork. The filling of wetlands that do not meet the requirements of a Nationwide Permit would necessitate submission of a Corps Section 404 permit application. If granted,

provisions within the permit would most likely entail mitigation for filled wetlands through either conversion of uplands or wetlands enhancement. Additionally, streams within the project area are "Waters of the United States" and as such are subject to Corps regulations should circumstances necessitate they be filled.

The various Nationwide Permits regarding the placement of fill or dredge material are presented within 33 CFR Part 330. A number of the Nationwide Permits may be applicable for the wetland type that occurs on site. Specifically in headwater wetlands, limited amounts of fill are permitted under 33 CFR 330.5 (26)(i), the filling of wetlands above headwaters. Headwater wetlands are defined as "the point on a non-tidal stream above which the average annual flow is less than five cubic feet per second". The discharge of the surface waterbodies identified in the field investigation appear to be below the threshold levels requiring an Army Corps of Engineers Section 404 Permit. This determination, however, will require notification of the Corps and a determination, by the District Engineer of the stream discharge.

Activities within a federally regulated wetland that are undertaken and financed by another federal agency may be exempt under 33 CFR 330.5 (23) provided that the agency has determined the activity is categorically excluded from the National Environmental Policy Act (33 CFR 1500 et seq.). Minor road crossings (33 CFR 330.5 (14)) and fill provided for utility lines (33 CFR 330.5 (12)) may also be eligible for a Nationwide Permit.

5.0 RECOMMENDATIONS

Considering the present regulatory climate surrounding wetlands it is recommended that the following guidelines be adhered to:

1. At least 28 working days prior to any fill operation, the Town of Vestal and the US ACOE should be notified by letter of the location and acreage of fill. In particular, there should be no fill activities attempted on any tract that is delineated on existing mapping as wetland or on areas identified as hydric on the soil survey map prepared by the USDA SCS without informing the US ACOE. Include photographs of the area of proposed activity.
2. Where feasible, the Nationwide Permits administered by the US ACOE should be utilized to the best advantage (Federal Register, 33 CFR Part 330, November 13, 1986). At least 28 days prior to the start of any fill activity, the US ACOE should be informed of the activity even if it is not required under the particular Nationwide Permit evoked.
3. Prior to selection of well sites and the start of any drilling operation consult, Gary Campo, Town of Vestal Engineer, regarding existing data and well sites.

4. If the US ACOE requires submission of a Section 404 permit application, a site map must be prepared by a licensed land surveyor and include the site boundary, proposed wetland line, surface water drainage, and 2 foot contour intervals.

eh:rd/HENRY/FR-1266

REFERENCES

1. Environmental Laboratory, 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. US Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS.

2. Federal Interagency Committee for Wetland Delineation 1989. Federal Manual for Identifying and Delineating Jurisdictional Wetlands. US Army Corps of Engineers, US Environmental Protection Agency, US Fish and Wildlife Service, and USDA Soil Conservation Service, Washington, DC Cooperative technical publication, 107 pp.

3. Munsell Soil Color Charts, 1975. Kollmorgen Corp. Baltimore, MD.

4. USDA Soil Conservation Service, 1987. Hydric Soils of the United States. National Technical Committee for Hydric Soils.

5. USDA Soil Conservation Service and Cornell University Agricultural Experiment Station, 1971. Soil Survey of Broome County, NY.

eh:rd/HENRY/FR-1266