DECISION DOCUMENT

Elmsford Distribution Center (1 Warehouse Lane)
Voluntary Cleanup Program
Elmsford, Westchester County
Site No. V00262
September 2011

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

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Site No. V00262
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Statement of Purpose and Basis

This document presents the remedy for the Elmsford Distribution Center (1 Warehouse Lane) site, a voluntary cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and applicable guidance.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Elmsford Distribution Center (1 Warehouse Lane) site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

During the course of the investigation certain actions, known as interim remedial measures (IRMs), were undertaken at the above referenced site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or alternatives analysis (AA). The IRM(s) undertaken at this site are discussed in Section 5.2.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment; therefore No Further Action is the selected remedy. The remedy may include continued operation of a remedial system if one was installed during the IRM and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the proposed remedy for the site.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

September 22, 2011

Date

Robert Cozzy, Director
Remedial Bureau B

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Site No. V00262
September 2011

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site resulted in threats to public health and the environment that were addressed by actions known as interim remedial measures (IRMs), which were undertaken at the site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or alternative analysis (AA). The IRMs undertaken at this site are discussed in Section 5.2. Contaminants include hazardous wastes and/or petroleum.

Based on the implementation of the IRM, the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment; therefore No Further Action is the selected remedy. A No Further Action remedy may include continued operation of any remedial system installed during the IRM and the implementation of any prescribed controls that have been identified as being part of the remedy for the site. This DD identifies the IRM conducted and discusses the basis for No Further Action.

The goal of the Voluntary Cleanup Program (VCP) is to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfields." This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: SITE DESCRIPTION AND HISTORY

Location:
1 Warehouse Lane is within an industrial park in an industrial/commercial area of Elmsford in Westchester County.

Site Features:
The one-half-acre site is occupied by a 6,600 square foot vehicle repair facility that was constructed in 1957. The site is currently and since 1957 has been a truck and/or bus repair facility within an industrial park in Elmsford. The surrounding area beyond the industrial park is densely developed with commercial properties and residential areas farther out. The Saw Mill River is the eastern border of the site.

Current Zoning/Use:
The site is zoned for commercial use. The surrounding parcels are currently used for a combination of commercial and light industry.

Historical Use:
The site was undeveloped prior to 1957 when the vehicle repair facility was built.

As a part of the vehicle repair facility seven petroleum storage tanks were known to be located on the property. Two were above ground storage tanks (ASTs) and five were underground storage tanks (USTs). The tanks contained diesel fuel, gasoline, heating oil or waste oils and most of the tanks were found to have leaked. A 4,000 gallon UST was removed prior to the VCP-related investigation and remediation, but contaminated soil remained around the previous location of that UST.

Site Geology and Hydrogeology:
On-site soil consists of fine to medium sands with coarse gravel from 6 inches to 9 feet below site grade (bsg), underlain by gray fine sand with some fine gravel and trace silt (moist). Historic fill materials are not present. Groundwater was generally encountered between 8 feet and 10 feet bsg and flows in a northeasterly direction.

A site location map is attached as Figure 1.

SECTION 3: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, at a minimum, an alternative that restricts the use of the site to commercial use (which allows for industrial use) as described in DER-10, Technical Guidance for Site Investigation and Remediation was evaluated.

A comparison of the results of the investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 4: ENFORCEMENT STATUS

The voluntary cleanup agreement is with a Volunteer. If the Volunteer elects not to complete the remedial program under the VCP, the Department will determine if the site poses a significant threat to human health and the environment. If the site is determined to pose a significant threat, the Department will approach the potentially responsible parties (PRPs) to implement the remedy. PRPs are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

SECTION 5: SITE CONTAMINATION

5.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 5.4.

5.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

5.1.2: RI Information

The analytical data collected on this site includes data for:

- groundwater
- surface water
- soil

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The

contaminants of concern identified at this site include:

benzene	arsenic
toluene	benzo[k]fluoranthene
ethylbenzene	benzo(a)pyrene
xylene (mixed)	benz(a)anthracene
naphthalene	dibenz[a,h]anthracene
lead	zinc
benzo(b)fluoranthene	chromium

Based on the investigation results, comparison to the SCGs, and the potential public health and environmental exposure routes, it was determined that certain media and areas of the site required remediation. These media were addressed by the IRM described in Section 6.2. More complete information can be found in the RI Report.

5.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

The following IRM has been completed at this site based on conditions observed during the RI.

Tank removal and soil excavation.

In September 2001, a 10,000-gallon diesel underground storage tank (UST), two 275-gallon waste oil USTs, a 275-gallon above-ground waste oil storage tank (AST), a 1,500-gallon fuel oil AST, a 2,000-gallon fuel oil UST and contaminated soil were removed from the site under an interim remedial measure (IRM). Soil was also excavated from the former location of a 4,000-gallon gasoline UST that was removed in the mid-1990s. From all of the excavations, a total of approximately 2,500 tons of impacted soil was removed from the site for proper off-site disposal.

5.3: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Direct contact with residual contaminants in the soil is unlikely because the majority of the site is covered with buildings and pavement. Volatile organic compounds in the groundwater or soil may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for people to inhale site contaminants in indoor air due

to soil vapor intrusion in any future on-site building redevelopment or construction. Sampling indicates soil vapor intrusion is not a concern for off-site buildings.

5.4: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Nature and Extent of Contamination:
Numerous petroleum storage tanks and contaminated soil were removed from the site under an IRM. Site contaminants consisted of constituents of gasoline, diesel fuel and waste oils.

Post-IRM sampling found that soil contamination above recommended soil cleanup objectives (SCOs) remained in some of the excavations. Originally, the SCOs were as stated in TAGM 4046. For the final RI report, soil data were also compared to commercial SCOs as listed in 6NYCRR Part 375. Commercial SCOs were exceeded in one of the 31 analyzed soil samples. A post-excavation sample obtained from a 275-gallon diesel UST excavation just above the water table at 9.5 to 10 feet below grade had benzo(a)anthracene at 5.74 ppm; benzo(a) pyrene at 3.68 ppm; dibenz(a,h)anthracene at 0.961 ppm; and lead at 1,250 ppm slightly above their respective commercial SCOs of 5.6 ppm, 1 ppm, 0.56 ppm and 1000 ppm.

Post-IRM sampling also showed that petroleum-related poly-cyclic aromatic hydrocarbons (PAHs) are present at concentrations above the protection of groundwater SCOs in some locations. One or more PAHs were detected above their respective protection of groundwater SCOs in eleven of 57 soil samples collected at the site. The majority were in the former location of a 4,000 diesel UST in the south east corner of the site. Of the 13 samples analyzed for metals, lead was observed above its protection of groundwater SCO (450 ppm) in one sample at 1250 ppm; chromium was detected above the hexavalent chromium protection of groundwater SCO (19 ppm) in all 13 samples at concentrations up to 34.4 ppm.

The data indicate that on-site groundwater contamination is not migrating off-site and the groundwater quality has been and will continue to improve over time. Periodic groundwater monitoring has shown a general decrease in concentrations of the remaining groundwater contaminants since completion of the IRMs.

The site is adjacent to the Saw Mill River. To determine if the site was impacting the river, surface water sampling was conducted in March 2006. The analytical results showed no site-related impacts in the river. Based on the findings, the Division of Fish, Wildlife and Marine Resources concluded that no further actions for the river were necessary.

The site is currently and has long been a truck and/or bus repair facility where fuels and other vehicle related chemicals are used daily. Remediation at the site is complete. Residual contamination remains.

SECTION 6: ELEMENTS OF THE SELECTED REMEDY

Based on the results of the investigations at the site, the IRM that has been performed, and the evaluation presented here, the Department is proposing No Further Action and the implementation of an institutional control in the form of a deed restriction and the engineering control (EC) of a site management plan as the proposed remedy for the site. The Department believes that this remedy is protective of human health and the environment.

The elements of the IRM already completed and the institutional and engineering controls are listed below:

1. The elements of the IRM are discussed above and included the removal of 4 USTs and 2 ASTs, as well as contaminated soil adjacent to the tanks. Soil was also excavated from the former location of a 4,000-gallon gasoline UST that was removed in the mid-1990s. From all of the excavations, a total of approximately 2,500 tons of impacted soil was removed from the site for proper off-site disposal.

2. The existing buildings and pavement at the site will form the site cover, since there is currently no exposed surface soil exceeding commercial levels. A site cover will be maintained as a component of any future site development, which will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of one foot of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

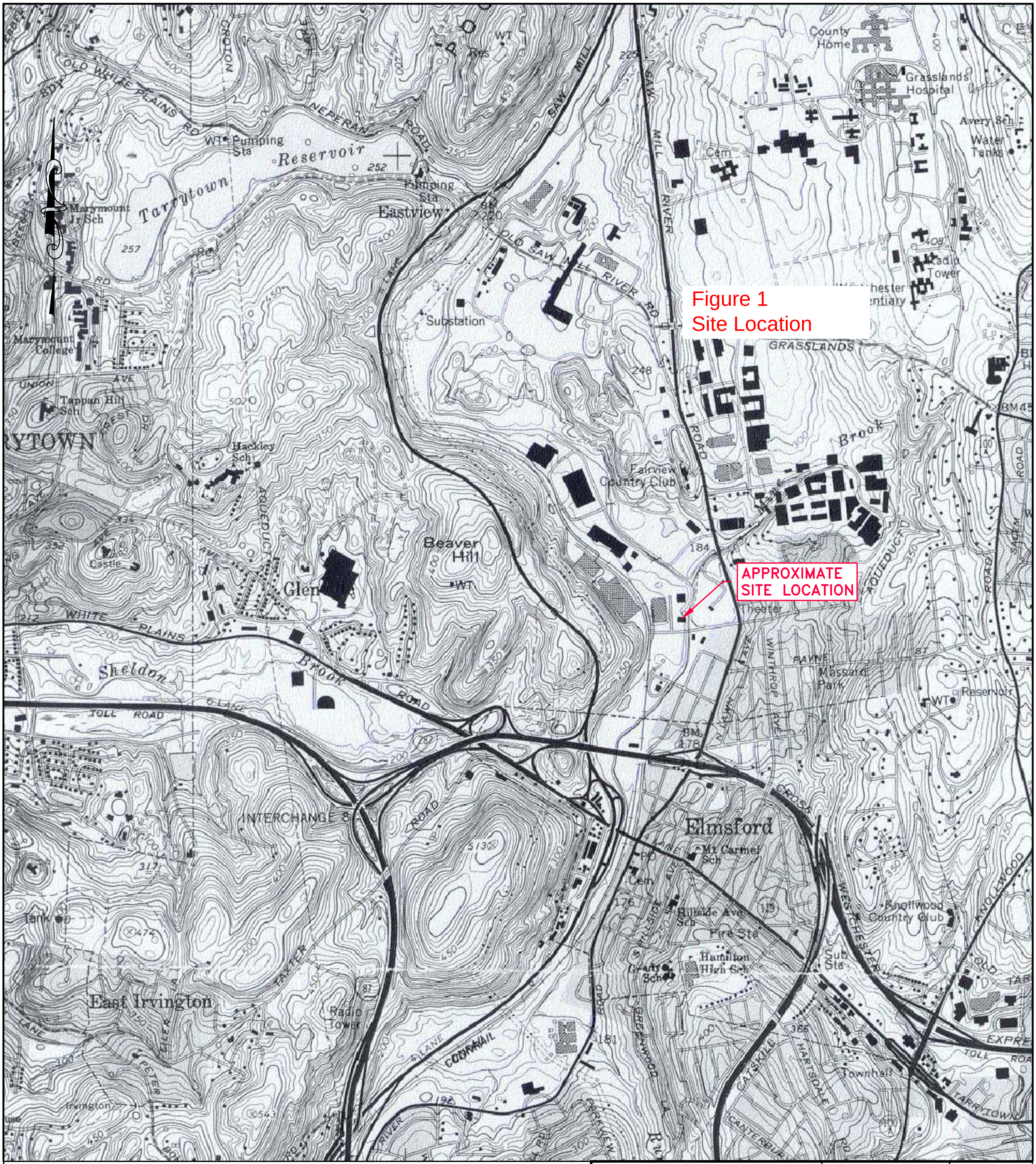
3. Imposition of an institutional control in the form of a deed restriction for the controlled property that:
a. requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3).
b. restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the Department, NYSDOH or County DOH;
c. prohibits agriculture or vegetable gardens on the controlled property;
d. requires compliance with the Department approved Site Management Plan; and
e. allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;

4. A Site Management Plan is required, which includes the following:
a. an institutional and engineering control plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and engineering controls remain in place and effective:
Institutional Controls: the deed restriction described above

Engineering Controls: the site cover system described above

This plan includes, but may not be limited to:
i. an excavation plan which details the provisions for management of future excavations in areas of remaining contamination;
ii. provision for evaluation of the potential for soil vapor intrusion should the use of the on-site building change and for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion.
iii. provisions for the management and inspection of the identified engineering controls;
iv. maintaining site access controls and Department notification; and
v. the steps necessary for the periodic reviews and certification of the institutional and engineering controls; and
b. a monitoring plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
i. monitoring of groundwater to assess the performance and effectiveness of the remedy;
ii. a schedule of monitoring and frequency of submittals to the Department;
iii. monitoring for vapor intrusion for any new buildings developed on the site and/or if the use of the current structure change as may be required pursuant to item 4 a.ii. above.

5. Green remediation principals and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as follows;
a. Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
b. Reducing direct and indirect greenhouse gas and other emissions;
c. Increasing energy efficiency and minimizing use of non-renewable energy;
d. Conserving and efficiently managing resources and materials;
e. Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.



SOURCE: USGS WHITE PLAINS, N.Y. 7.5 MINUTE QUADRANGLE

Environmental Waste Management Associates, LLC
P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400

SCALE: 1" = 2,000'		PROJECT# 200385
DATE: 10/6/10		
DRAWN BY: RR		
CHECKED BY: AK		
FILE: k:\drawings\200000\200385\2010 OCT\200385f1.dwg		

SITE LOCATION
ELMSFORD DISTRIBUTION CENTER
1 WAREHOUSE LANE
ELMSFORD, NEW YORK

FIGURE# 1

Figure 2
Site Plan

AREAS OF CONCERN (AOCs)

AOC1	LOCATION OF FORMER 4,000 GALLON DIESEL UST
AOC2	LOCATION OF FORMER 275 GALLON WASTE OIL UST
AOC3	LOCATION OF FORMER 275 GALLON WASTE OIL AST
AOC4	LOCATION OF FORMER 275 GALLON WASTE OIL UST
AOC5	LOCATION OF FORMER 10,000 GALLON GASOLINE UST
AOC6	INTERIOR STAIN
AOC7	LOCATION OF FORMER 1,500 GALLON #2 FUEL OIL AST
AOC8	LOCATION OF FORMER 2,000 GALLON #2 FUEL OIL UST

approximate site boundary

GRASS
ASPHALT PAVED
FENCE (TYP.)
AOC8
AOC7
O.H. DOOR (TYPICAL)
CONCRETE
1 WAREHOUSE LANE
ASPHALT
GRASS
MW-2
AOC2
AOC3
AOC4
MW-4
MW-5
MW-3
AOC5
ASPHALT
ACCESS ROAD
SAW MILL RIVER
VEGETATED
AOC1
MW-1
CONCRETE/ ASPHALT PAVED
CURB
GRASS
GRAVEL
SIDEWALK
GRAVEL
WAREHOUSE LANE

LEGEND

- MONITORING WELL LOCATION
- REMEDIAL EXCAVATION BOUNDARY

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)

Environmental Waste Management Associates, LLC
P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400

SCALE: AS SHOWN	PROJECT# 200385
DATE: 10/6/10	
DRAWN BY: RR	
CHECKED BY: AK	

FILE: k:\drawings\200000\200385\2010 OCT\200385f6.dwg

AREAS OF CONCERN (AOC) PLAN

ELMSFORD DISTRIBUTION CENTER
1 WAREHOUSE LANE
ELMSFORD, NEW YORK

FIGURE# 6