



**ASTM PHASE I ENVIRONMENTAL SITE ASSESSMENT
(ASTM E 1527-05)**

**25 WATER STREET
AMESBURY, MASSACHUSETTS**

PREPARED FOR:

**THE CITY OF AMESBURY
MASSACHUSETTS, 01913**

PREPARED BY:

**HIGGINS ENVIRONMENTAL ASSOCIATES, INC.
19 ELIZABETH STREET
AMESBURY, MASSACHUSETTS 01913**

November 13, 2012

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
EXECUTIVE SUMMARY	I
1.0 INTRODUCTION	1-1
1.1 PURPOSE AND DETAILED SCOPE-OF-SERVICES	1-1
2.0 SITE DESCRIPTION	2-1
2.1 LOCATION AND LEGAL DESCRIPTION	2-1
2.2 SITE AND VICINITY GENERAL CHARACTERISTICS	2-1
2.3 CURRENT USE OF THE PROPERTY	2-2
2.4 DESCRIPTION OF STRUCTURES, ROADS, OTHER IMPROVEMENTS	2-2
2.5 CURRENT USES OF THE ADJOINING PROPERTIES	2-2
3.0 USER PROVIDED INFORMATION	3-1
3.1 TITLE RECORDS	3-1
3.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS	3-1
3.3 SPECIALIZED KNOWLEDGE	3-1
3.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES	3-1
3.5 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION	3-1
3.6 REASON FOR PERFORMING PHASE I	3-1
3.7 OTHER	3-1
4.0 RECORDS REVIEW	4-1
4.1 STANDARD ENVIRONMENTAL RECORD SOURCES	4-1
4.2 ADDITIONAL ENVIRONMENTAL RECORD SOURCES	4-2
4.3 PHYSICAL SETTING SOURCE(S)	4-3
4.4 HISTORICAL USE INFORMATION ON THE PROPERTY	4-3
4.5 HISTORICAL USE INFORMATION ON ADJOINING PROPERTIES	4-3
5.0 SITE RECONNAISSANCE	5-1
5.1 METHODOLOGY AND LIMITING CONDITIONS	5-1
5.2 GENERAL SITE SETTING	5-1
5.3 EXTERIOR OBSERVATIONS	5-2
5.4 INTERIOR OBSERVATIONS	5-2
6.0 INTERVIEWS	6-1
6.1 INTERVIEW WITH OWNER	6-1
6.2 INTERVIEW WITH SITE MANAGER	6-1
6.3 INTERVIEWS WITH OCCUPANTS	6-1
6.4 INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS	6-1
6.5 INTERVIEWS WITH OTHERS	6-1
7.0 FINDINGS	7-1
8.0 OPINION	8-1
9.0 CONCLUSIONS	9-1
10.0 DEVIATIONS	10-1

11.0	ADDITIONAL SERVICES	11-1
12.0	REFERENCES	12-1
13.0	SIGNATURES AND QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS	13-1

APPENDICES

<u>Appendix</u>		<u>Follows Page Number</u>
A	SITE MAPS	13-1
B	ASSESSORS INFORMATION	13-1
C	LIMITATIONS, CONDITIONS, EXCEPTIONS	13-1
D	SITE PHOTOGRAPHS	13-1
E	REGULATORY RECORDS DOCUMENTATION	13-1
F	HISTORICAL RECORDS	13-1

EXECUTIVE SUMMARY

Higgins Environmental Associates, Inc. (HEA) has completed an ASTM Phase I Environmental Site assessment (ASTM Phase I) for the property 25 Water Street in Amesbury, Massachusetts (the "Site"). The Site is located within Amesbury's historic industrial area known as the Lower Millyard. The area was originally developed in the mid to late 1800s. The Site is currently a level, vacant lot. This ASTM Phase I also included a supplemental assessment of adjacent properties at 27, 29 and 31 Water Street (collectively the "Park Area") were also evaluated. The environmental condition of each of these adjacent properties has been previously assessed by HEA for the City of Amesbury or others.

For the ASTM Phase I of the Site, HEA completed a field inspection on October 22nd and a review of local municipal records in late October through early November 2012. The "Park Area" has a combined land area of approximately 1.68 acres, with 0.42 acres being the Site itself. Based on available municipal records, there have been a variety of buildings and uses for the Site and Park Area since the late 1800s. Municipal water has been available in the Park Area since 1885. The Site itself is a vacant, grass-covered, lot with a small gravel parking area. At 27 Water Street there is a brick building which houses the City of Amesbury's Department of Public Works (DPW) facility. At 29 Water Street there is a three-story brick building that houses the Amesbury Carriage Museum. Finally at 31 Water Street, the lot is currently an open storage area used by the City of Amesbury for storage sand, gravel, and road paving grindings. Most recently, the 31 Water Street property housed a two-story wooden building known as the Amesbury Wharf building.

The Site and Park Area are zoned for industrial and commercial use (Zoning Code IC) and have typically been used for light industrial and commercial purposes. Surrounding property use is also consistent with industrial and commercial purposes. The nearest residential structure is located off Mill Street, approximately 350 feet to the southwest and across the Powow River from the Site.

During our field inspection, a representative of the current property owner confirmed that the Site was indeed vacant and was most recently occupied by a two story wood building used by the Louis Shoe Company. The building was demolished in the late 1970s to early 1980s.

The Site itself was not listed on the Massachusetts Department of Environmental Protection's (MassDEP's) Sites List for releases of oil or hazardous materials (OHMs), but two adjacent properties were listed; at 27 and 31 Water Street. The 27 Water Street property was listed in 1998 under Release Tracking Number (RTN) 3-0016715 for a release of aromatic hydrocarbons, fuel oil, and naphthalene). The 31 Water Street property was listed in 2000 (RTN 3-0019634) for a Threat of Release condition associated with a variety of chemicals listed in Section 4.1 of this ASTM Phase I report. Both of these RTNs on adjacent properties have achieved either a Temporary (27 Water Street) or Permanent (31 Water Street) Solutions by filing of separate MCP Response Action Outcome (RAO) Statements.

ASTM Phase I-defined *recognized environmental conditions* (REC) warranting further action were identified for this Site in this assessment. Given the historical use of the Site, the potential for OHM impacts to soil or ground water is considered high. This ASTM Phase I was completed in October and November 2012 and did not include any collection or laboratory analysis of soil or environmental samples. An ASTM Phase II assessment including collection and laboratory analysis of soil and ground water is being completed on adjacent land areas with the proposed Heritage Park, on land currently owned by the City of Amesbury. Access for sampling and laboratory analysis on the 25 Water Street parcel was not currently available.

This ASTM Phase I report was performed following ASTM Phase I Environmental Assessment guidance (ASTM E 1527-05) and includes a detailed discussion of assessment methodology, limitations, findings and conclusions. The purpose of the ASTM Phase I was to provide HEA's findings in accordance with ASTM E 1527-05. This report and findings are subject to HEA's contract for services with our client, the City of Amesbury and with HEA's Limitations, Conditions, and Exceptions noted in this ASTM Phase I report. No other party may rely on this document or HEA's findings unless authorized in writing by both HEA and HEA's client. In no event shall this report or the findings herein be relied upon by any party after November 2013, one year after completion of this report.

1.0 INTRODUCTION

Higgins Environmental Associates, Inc. (HEA) has completed an American Society for Testing and Materials (ASTM) Phase I Environmental Site Assessment (ASTM Phase I) for the property located at 25 Water Street in Amesbury, Massachusetts (the "Site"). This ASTM Phase I includes a supplemental assessment of adjacent properties located at 27, 29 and 31 Water Street (collectively the "Park Area"). HEA's client, The City of Amesbury, is a prospective purchaser of the property. The City of Amesbury Assessors Office currently identifies the Site as Map 53, Lot 110 (the "site"). The "Park Area" is identified as Map 53 Lots 110, 104, 105 and 103 respectively. Two maps are provided in **Appendix A** which illustrate the general site location and separately, pertinent site features. Copies of Amesbury's Assessor's Office Information for this property is provided in **Appendix B**.

1.1 Purpose and Detailed Scope-of-Services

This ASTM Phase I has been completed in accordance with ASTM Phase I guidelines at the written authorization of the City of Amesbury. The purpose of this ASTM Phase I was to assess the Site following ASTM E 1527-05 guidelines for *recognized environmental conditions* (RECs), as characterized by the release or threat of release of oil or hazardous materials (OHM), and as defined by ASTM E 1527-3.2.74. HEA's services and work products are subject to the ASTM-defined Significant Assumptions, Limitations and Exceptions, Special Terms and Conditions, User Reliance, and HEA's Standard Terms and Conditions with our Client. Copies of these documents are provided in **Appendix C**.

Detailed Scope-of-Services

HEA conducted a review of available environmental records at the federal, state, and local level. This review utilized commercially-available electronic databases and included a review of information on historical Site use. The purpose of the records review was to assess whether *recognized environmental conditions* related to the use, storage, or disposal of OHM have been recorded on, or have the potential to impact, the Site.

Local record reviews and interviews included the City of Amesbury Assessors Office, Board of Health, Building Department, Engineering, and Fire Department.

Information obtained from record reviews and interviews are summarized in the Section 4 - Records Review, and Section 6 - Interviews.

HEA performed a site reconnaissance on Monday, October 22, 2012 to assess the Site for the use, storage, or disposal of OHM. The reconnaissance consisted of visually assessing the Site for the presence of stained soils or surfaces, stressed vegetation, or evidence suggesting the use, storage, or disposal of OHM. All areas of the Site were available during the reconnaissance. The Site is a vacant lot with no building or known subsurface structures..

To the extent possible, adjoining properties were also visually observed from the Site in an attempt to identify the likelihood of *recognized environmental conditions* on these properties which may have the potential to impact the Site. This ASTM Phase I included a supplemental assessment for properties adjacent to the Site and within the same proposed Heritage Park Area (the "Park Area"); notably portions of 27, 29 and 31 Water Street.

This ASTM Phase I did not include any physical, chemical or biological testing and analysis or related services and interpretations. An ASTM Phase II has been completed under separate cover for the Park Area that included sampling and laboratory analysis of soil and ground water but access was not available at the time of the ASTM Phase II to assess the quality of soil or ground water on the Site itself.

2.0 SITE DESCRIPTION

2.1 Location and Legal Description

The Site is located at 25 Water Street in Amesbury and consists of approximately 0.42 acres of vacant land. The majority of the Site area is maintained with grass. A small gravel parking area is located along the western side of the Site and is used as parking for an adjoining lot. The "Park Area," which includes four properties, consists of approximately 1.4 acres.

The general location of the Site and Park Area is depicted on **Figure 1 - General Site Location**. The approximate locations of pertinent Site features and combined property boundaries are depicted on **Figure 2 - Site Plan**. Figures are provided in **Appendix A**. The geographical location of the properties can be referenced as $-70^{\circ} 55' 41.16''$ longitude and $42^{\circ} 51' 22.32''$ latitude. The Universal Trans Mercator coordinates are 4746651 Northing and 342476 Easting in Zone 19.

According to Amesbury's Assessors Office, the Site is identified on Map 53 as Lot 110. Copies of the Assessor's Information for these lots are provided in **Appendix B**. The Assessor's Information provides additional information on pertinent Site features and dimensions.

According to information provided by the Amesbury Assessor's office, the Site is recorded in Essex District Registry of Deeds in Book 14193, Page 292 (Lot 110).

2.2 Site and Vicinity General Characteristics

The Site consists of approximately 0.42 acres of land Zoned IC for industrial and commercial uses. Historical Sanborn Fire Insurance Maps depict the development of the Site as early as 1885. The property is located within the historically-developed Lower Millyard of Amesbury, Massachusetts. Many of the mill buildings in the area were constructed in the late 1800s to early 1900s and to varying extent have been demolished over time. Some of historic mill structures remain in the Site area. There are residential properties located off Elm Street, approximately 700 feet to the North of the Site, along Oakland Street, approximately 500 feet Northeast, and off Mill Street approximately 350 feet South across the Powow River. The Powow River flows easterly along the southern side of the Site while a paved public walking path borders the Northern side of the Site. Other surrounding properties are occupied by buildings, paved areas or in the case of 31 Water Street another vacant lot currently used by the City of Amesbury for storage. The Site is unpaved with maintained grass and a small gravel area used for parking.

The Site is located approximately one quarter mile East of downtown Amesbury. The Site itself is located on Water Street south of the Amesbury Department of Public Works facility and north of the Powow River. There is a steep embankment along southern Site boundary with the Powow River, with visibly apparent undercutting and erosion. The topographical relief of the property is flat. The Site itself is approximately ten feet above mean sea level. There are no residential uses at the Site or on nearby or abutting properties.

General photographs of the Site and Park Area are provided in **Appendix D**.

The nearest surface water body is the Powow River which flows along the Site's southern border. The Back River, a tributary to the Powow, is located approximately 200 feet east of the Site. The Back River flows southerly along the Park Area's Eastern border.

There is a public, paved walking path just off the northern and eastern boundaries of the Site. There are no schools, drinking water resource areas, or farms within 500 feet of the Site. The Site is not within a mapped ground water protection or Zone II well head protection area.

2.3 Current Use of the Property

The Site presents itself as a small open space area with a small gravel parking section and mowed area of grass. During this assessment, we observed several cars parked on the gravel section and use of the grassed area by people walking dogs.

2.4 Description of Structures, Roads, Other Improvements

There is a small building identified as the “Salisbury Point Railroad Museum” in or just off the northwestern portion of the Site. The building is a single story, approximately 10 foot by 12 foot in dimension structure, sitting atop short cement pillars. The closest improvement is a public paved walking path boarding off the northern and eastern boundaries of the Site.

2.5 Current Uses of the Adjoining Properties

Adjoining properties are also within Amesbury’s IC Zoning area. West of the Site, at 9 Water Street, is a single story, metal-sided, building with multiple loading bays connected to a brick 5.5-story mill building. Water Street Realty Trust with Louis Lavoie as Trustee was listed as the owner of the westerly-abutting property at 9 Water Street. North of the property, at 27 Water Street, is Amesbury’s DPW facility. The facility is a single story brick building with multiple garage bays. Northeast of the Site is a three-story brick building that is currently the Amesbury Carriage Museum (29 Water Street). Currently this building just houses antique wooden horse-drawn carriages and does not have public access. The Carriage museum is owned by the Amesbury Carriage Alliance. To the east of the Site is 31 Water Street, a currently vacant lot used by the City for storage of sand and gravel, and pavement grindings.

3.0 USER PROVIDED INFORMATION

3.1 Title Records

No title records were provided to HEA.

3.2 Environmental Liens or Activity and Use Limitations

No documents pertaining to environmental liens or activity and use limitations were provided to HEA. Records reviews and interviews conducted as part of this ASTM Phase I also did not reveal any of these potential encumbrances.

3.3 Specialized Knowledge

No specialized knowledge regarding the Site was provided to HEA.

3.4 Valuation Reduction for Environmental Issues

No documents pertaining to a reduction in the properties' value due to environmental issues was provided to HEA. No such similar documents or evidence were discovered or reported to HEA during the records review and interviews.

3.5 Owner, Property Manager, and Occupant Information

According to Amesbury Assessors records, the owner of the Site is Water Street Realty Trust with the contact listed as Louis Lavoie, Trustee. The Site is a vacant lot, with no occupants. Richard Belanger an employee on the adjacent 9 Water Street mill property provided oral testimony to HEA during this ASTM Phase I regarding his knowledge of the Site. Mr. Belanger had worked very briefly at the Site when occupied by the Louis Shoe Company (prior to about 1980). Information obtained during the walkthrough and interview is incorporated as appropriate into this ASTM Phase I.

3.6 Reason for Performing Phase I

This ASTM Phase I was requested by HEA's client, the City of Amesbury, as part of their due diligence for a potential real estate transaction of the property and in part, to satisfy due diligence requirements for federal and state funding to develop this general area into a public, waterfront park; Amesbury's proposed Heritage Park.

3.7 Other

HEA received a file from the Fire Department documenting that a 2,500 gallon above ground storage tank was removed from 31 Water Street in May of 2001. The removal occurred when HEA was providing environmental services to the City of Amesbury in this area. The tank was permitted for the storage of fuel oil and was empty at the time of removal with no evidence of a release of oil.

Although not made available to HEA during this ASTM Phase I, the Water Street Realty Trust apparently had completed an earlier environmental site assessment of the Site. Based on discussions with Mr. Joseph Fahey, Community and Economic Development Director for the City of Amesbury, the prior environmental assessment by others for the Site apparently did not find evidence OHM impacts requiring further assessment or remedial actions.

Other than as referenced in this ASTM Phase I report, no other documents, records, or specialized knowledge was provided to HEA by Water Street Realty Trust or others.

4.0 RECORDS REVIEW

4.1 Standard Environmental Record Sources

Database Review

HEA reviewed an environmental database search report, dated October 22, 2012 and prepared by Environmental Data Resources, Inc. (EDR) of Milford, Connecticut for the Site and for surrounding properties within ASTM Phase I-defined search radii. A summary copy of the database report is provided as **Appendix E**. This report included a search of federal and state databases. The following databases were reviewed:

1. National Priorities List (NPL) and Delisted NPL sites;
2. Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) sites;
3. Resource Conservation and Recovery Act (RCRA) - Treatment, Storage and Disposal (TSD) sites;
4. RCRA - Corrective Actions (COR) - TSD sites;
5. RCRA Generator sites;
6. Emergency Response Notification Sites (ERNS) list;
7. State and Landfill Sites;
8. Solid Waste Landfill sites, updated January 1, 2008;
9. Registered Underground Storage Tanks (USTs) and Above Ground Storage Tanks (ASTs), updated;
10. Federal Sites; and,
11. State and Voluntary Cleanup Sites.

The Site itself was not listed on any of the above database records. There was also no other state or local records pertaining to a release or threat of release of OHM at the Site.

Two of the properties within the proposed Heritage Park Area, 27 and 31 Water Street, have had documented releases of OHMs leading to their listing with the Massachusetts Department of Environmental Protection (MassDEP).

The incident at 27 Water Street (DPW Facility) was related to a formerly leaking underground storage tank (UST) used to store petroleum. The UST has been removed and a Temporary Solution, Class C-1 Response Action Outcome (RAO) Statement was filed by HEA for this incident. Based on HEA's direct knowledge of the nature and extent of release conditions, impacts from the former UST area do not extend onto the proposed Park Area. The approximate limits of the DPW Disposal Site are depicted on **Figure 2**. Under separate cover, an ASTM Phase II within the Park Area also documented that petroleum impacts had not extended into the proposed Park Area. As such, this UST release incident is not considered to be an ASTM Phase I *recognized environmental condition* relative to the Site or proposed Park Area.

There have been two incidents at 31 Water Street (also known as the Wharf Property). One incident involved the detection of OHM in surficial soil discovered by EPA and HEA as part of a prior Brownfield Site Assessment of that property. OHM impacts to soil were reported to MassDEP and ultimately, HEA found that a Condition of No Significant Risk existed and filed an RAO to document regulatory closure. A second incident at the same location was discovered after the Wharf Building had collapsed and a drum of isocyanate used by a tenant for polymer foam extrusions was punctured. The incident occurred within the building foot print on a concrete slab floor. Emergency Response crews removed the drum and HEA filed an RAO for the City of Amesbury to document that regulatory closure had been obtained for that incident. Information obtained by EPA and HEA during prior assessment activities at this location have been utilized as part of a separate ASTM Phase II assessment

of the proposed Park Area. While regulatory closure was obtained previously for the threat of release condition and for documented impacts to surficial soil, as the proposed Heritage Park represents a different use for this area, prior soil impacts at 31 Water Street are considered as *recognized environmental conditions* for the Park Area but not for the Site (25 Water Street) itself.

Local File Reviews and Interviews

During this ASTM Phase I, HEA interviewed officials and reviewed available records within the City of Amesbury's Assessor's, Building, Engineering, Fire and Health Departments. The Assessor's office records were accessed both electronically and in person to obtain field cards for the Site, **Appendix B**. The Engineering Department had plans depicting site buildings and property boundaries.

The Building Department had records indicating the prior to approximately 1980, a three story wooden building occupied much of the Site area.

The Fire Department had a file pertaining to an above ground storage tank (AST) located at 31 Water Street. The 2,500 gallon tank which was permitted for fuel oil storage was removed in May 2001 by ECSI of Atkinson, NH. The tank itself was provided to N.A. Nicols, a metal scrap processing facility, for recycling.

There were no other recorded incidents involving OHM storage, use or disposal at 25 Water Street that would represent an ASTM Phase I-defined *Recognized Environmental Condition*. There were also no records of underground storage tanks on record at the Amesbury Fire Department for the Site or Park Area.

4.2 Additional Environmental Record Sources

HEA has also reviewed historical Sanborn Fire Insurance maps, aerial photographs, and topographical maps for the Site. The Sanborn Fire Insurance Maps had coverage for the Site from 1885 through 1958, and aerial photographs from 1953 through 2006. Since 1885, the Site (25 Water Street) and surrounding area (27-31 Water Street) have had multiple industrial uses. Since 1885 to 1978, the Sanborn maps as well as the historical aerial photographs show an historic extension of Water Street running between 25 and 27 Water Street, where there is also a 6-inch diameter water pipe under the roadway since 1885. The water pipe stops at the intersection of 29 and 31 Water Street, while the roadway turns 90° north between the two properties. By 1918, the Sanborn map shows the installation of a 8-inch diameter water pipe under the north facing roadway between 29 and 31 Water Street, which connects to the original 6-inch diameter water pipe.

Starting in 1885, there were several small buildings on the Site (25 Water Street), all of which were a part of The Boardman Soap Company. Along with the existing structures, there were plans to build a coal barn on the site as well. By 1894, the barn was built, first used for lumber storage and then for coal storage. In the 1899, Sanborn Fire Insurance maps indicate that the Boardman Soap Company is no longer present, but the coal barn remains on site and stays until 1909. By then, several small structures had been removed and replaced by one large lumber storage building. On the 1918 map, the Site appears to have been leveled and remains vacant until the 1930 map, which depicts a large building, covering the entire property, and noted as being part of the Amesbury Brass & Iron Foundry Co. located at 27 Water Street since 1909. According to the Insurance maps, the Site building (on 25 Water Street) was powered and heated by steam. During the time Amesbury Brass & Iron opened the Site building, it was noted on the insurance map as being used for grinding, polishing and plating metals. In 1945, the foundry building on the Site was identified as part of the Louis Shoe Company where it remained until sometime after 1958 according to the Insurance maps. The historic aerial photographs show the Site building in 1966 as well as in 1973. By 1998, the Louis Shoe Co. building was gone, and by 2006, grass was visible on aerial photographs on the vacant lot, as it appears to be today. Based on records maintained by Amesbury's Building Department, the Site building may have been demolished sometime between 1973 and 1980.

At 27 Water Street, there were several small structures present while the Biddle & Smart Carriage Company occupied the property. The Biddle & Smart Carriage Company kept buildings at 27 Water Street from 1885 to 1899. In 1899, Biddle & Smart appeared not to be using the property and left two vacant structures, which remained until 1909 when a new building was built next to the vacant structures on the property to house the Amesbury Brass & Iron Foundry Co. The new structure was noted as a brass foundry while the small vacant structures was noted for storage until 1945. By 1945, the City of Amesbury replaced existing buildings at 27 Water Street with one structure which housed automobiles and trucks for the highway department. Today the building remains and is currently the City of Amesburys' DPW facility.

The Biddle & Smart Carriage Co. also was noted at 29 and 31 Water Street on historical Sanborn Maps from 1885 through 1930. Originally the company produced horse-drawn carriages until 1909 when the company started producing automotive bodies. By 1945, 29 Water Street became part of the Louis Shoe Co. while 31 Water Street became the Brody Wood Heel Factory. The 1958 maps showed similar industrial use. On the 1998 aerial photograph, it appears that approximately half of the Brody Wood Heel Factory building had been demolished. By 2006 the building appears to have been completely demolished.

Topographical map coverage for the property was available from 1894 through 1985. The topographic maps depict the subject property as being within the historically developed portion of Amesbury. The rail road lines were depicted throughout all years of coverage. Otherwise, there was minimal detail on the subject property itself.

Historical records are included in **Appendix D**.

4.3 Physical Setting Source(s)

HEA has utilized data sources referenced in Sections 4.1 and 4.2, and electronically-available information from the Massachusetts Executive Office of Energy and Environmental Affairs (EEA), Massachusetts Geographical Information System (MassGIS). MassGIS information included a topographical map, recent aerial photography, and information pertaining to land use and sensitive resource areas.

4.4 Historical Use Information on the Property

Historical information utilized by HEA is summarized in Sections 4.1 and 4.2

4.5 Historical Use Information on Adjoining Properties

Historical information on adjoining properties is summarized in Section 4.2.

5.0 SITE RECONNAISSANCE

HEA completed a Site reconnaissance on Monday, October 22, 2012. The following sections summarize HEA's reconnaissance methods, limitations, and findings. The objective of the Site reconnaissance was to obtain information indicating the likelihood of identifying *recognized environmental conditions* in connection with the Site.

5.1 Methodology and Limiting Conditions

HEA's Site Reconnaissance methodology includes the following:

1. Meeting with a representative able to provide access to the site and site structures.
2. Visually assessing the site interior and exterior in a survey pattern consistent with site layout (typically front to back, lower floors to upper floors, etc.).
3. HEA requests access to all rooms and interior doors.
4. HEA takes general notes on site conditions with specific reference to *recognized environmental condition* if present.
5. The reconnaissance includes an interview with the site representative to establish their familiarity with the site's use.
6. HEA then completes a visual assessment of exterior portions of the site with the site representative. For large sites, HEA may complete transects through portions of the property with a focus on areas accessible by vehicle and along walking trails.

In general, HEA prefers to complete the site reconnaissance with representatives familiar with the site's history of use and knowledge of site boundaries. HEA will often request a map depicting pertinent site structures and property boundaries.

In addition to ASTM Phase I specific limitations, HEA's assessment is limited to what is actually observed during the reconnaissance. HEA's ASTM Phase I does not include any physical disturbance to existing structures or materials, access to locked rooms or fenced areas, assessment beneath snow or similar exterior surface coverings, or access to or assessment of, any areas or structures requiring special equipment or special precautions for human health and safety purposes such as access to roofs, underground vessels, structurally unstable areas, or areas containing potentially airborne oil, microbial, or hazardous materials.

HEA's assessment of the subject Site was not limited by any structures, or fences since the Site is a vacant lot.

5.2 General Site Setting

The general Site area presents itself as historically industrial and non-retail commercial. Surrounding properties are developed similarly to the subject property (either vacant or still contain historical buildings). There are no residences proximate to the Site; the nearest residence being approximately 3500 feet southwest across the Powow River on Mill Street. The Site is bounded by the Powow River (tidal river) on the south side of the Site. The embankment is steep with remnants of historic river bank-support structures. The Powow River, and nearby Back River have evidence of urban fill on the riverbed: bricks; coal clinkers and slag; pipes; tires; and, other urban objects. The Site is bounded on the north and east by a public, paved walkway (the "River Walk") and beyond the riverwalk, by historical mill structures, a vacant lot (31 Water Street) and Amesbury's DPW facility (27 Water Street). Access to the Site is available primarily from the northwest section, most proximate to Water Street..

Photographs taken on Monday, October 22, 2012 are provided in **Appendix D**.

5.3 Exterior Observations

The Site is a vacant lot, comprised of approximately 0.42 acres of land and accessed off Water Street. There is a public paved walkway, the River Walk, which runs along the north and east sides of the property. On the property itself, there are some small remains of structures including small pieces of cement, bricks, and remains of support legs along the Powow River bank.

The Site has maintained grass covering the majority of the lot, with a small, western-section of the lot used as a gravel parking area.

There were no significant areas of dark stained pavement or residues observed during this assessment. There was also no readily apparent odors.

HEA did not observe OHM use, storage or disposal areas and we did not observe dark-colored staining or stressed vegetation, or discernible odors during our site reconnaissance. Exposed surficial soils appeared to be a granular fill material with areas of concrete, coal clinkers and slag, and coal.

5.4 Interior Observations

The only structure on the property is located at the far northeast corner, along the River Walk. The structure is a small wooden building that is identified as the Salisbury Point Train Museum. The building itself was locked. The building was raised, slightly above grade, on concrete posts.

6.0 INTERVIEWS

6.1 Interviews with Owner

HEA briefly interviewed representatives of the Water Street Realty Trust as part of this ASTM Phase I. One representative met with us in the field but formal access and an interview was not provided within the limited time available to complete this ASTM Phase I. A representative of the owner indicated that a prior environmental assessment had been completed by others. That this assessment did not indicate a problem with the Site but a copy of this report was not made available within the time frame of this ASTM Phase I.

6.2 Interviews with Site Manager

Mr. Richard Belanger, a representative of the current Site owner, had briefly worked at the Louis Shoe Company located at 25 Water Street when he was in High School. He recalled the building structure to have been a 3-story wooden building, with no knowledge of any OHM being used or disposed of at the Site.

6.3 Interview with Occupants

There are no tenants or occupants of the Site.

6.4 Interviews with Local Government Officials

As part of this ASTM Phase I, HEA interviewed the following local government officials

- Fire Prevention Officer Fournier, Amesbury Fire Department
- Assessors Office employee for Records
- Amesbury Health Department Assistant for Files
- Amesbury Building Inspector Denis Nadeau
- Amesbury Engineering Department Staff

6.5 Interviews with Others

HEA did not interview others other than those mentioned above.

7.0 FINDINGS

The Site consists of approximately 0.42 acres of historically-developed, commercial/industrial land located in Amesbury's Lower Mill yard, approximately one quarter mile east of downtown Amesbury. The Site has been developed since at least the late 1800s with a variety of building configurations and uses. Early use of the Site was related to soap manufacturing which then changed to horse-drawn carriage manufacturing. Automotive body manufacturing took over from the early 1900s until the 1930s, when the Site was used by the Louis Shoe Company for shoe manufacturing. The shoe manufacturing remained until the 1970s when the building was demolished. The Site has remained a vacant lot since that time.

Although the Site as well as the overall "Park Area" have had industrial uses, there are no records of oil or hazardous materials (OHM) uses or releases within or near the Park Area until the 1980s and again in 2000. MassDEP has documentation about individual incidents at 27 and 31 Water Street during this time related to OHM. City of Amesbury DPW is located at 27 Water Street, where in the 1980s, petroleum impacts were discovered during removal of an underground storage tank. In 1998, a Phase IV, Class C Response Action Outcome Statement was filed for UST removal area on 27 Water Street (Release Tracking Number 3-0016715). Based on HEA's direct knowledge of the nature and extent of release conditions related to petroleum impacted soil and the former UST, these impacts do not extend onto the Site or Park Area. Under separate cover, HEA has completed an ASTM Phase II assessment of the Park Area which included evaluation of soil and ground water quality. The findings of the ASTM Phase II also confirmed that petroleum impacts do not extend onto the Site or Park Area. At 31 Water Street, OHMs related to impacts to surficial soil and a Threat of Release Condition have been documented by EPA and HEA. HEA has since assessed and closed these incidents with the filing of separate Response Action Outcome statements. Also at 31 Water Street, a 2,500 gallon above ground storage tank was removed in 2001, as noted in records on file at the Amesbury Fire Department. HEA was present during removal of this AST and did not observe evidence of a release of OHM from the tank.

A review of available records included current and historical records regarding OHM use, storage and disposal. Other than the documented incidents at 27 and 31 Water Street, there were no recorded releases of OHM at the subject Site, the Park Area, or on nearby properties having the interpreted potential to impact the Site. Historical records did document that OHMs have historically been used at the Site since the late 1800s to present, and as such, represent an ASTM Phase I-defined *Recognized Environmental Condition* with additional testing required to evaluate the overall quality of soil and ground water on the Site. Under separate cover, an ASTM Phase II assessment of the Park Area, excluding the subject Site, confirmed the presence of OHM impacts to shallow granular fill, particularly on the 31 Water Street lot where similar impacts were discovered in the past. While current impacts are reasonably consistent with historically documented OHM types and concentrations, future use of this overall Park Area as a public, recreational area warrants additional remedial actions to address OHM-impacted granular fill materials in this general area.

Our assessment of the subject Site (25 Water Street) specifically excluded any assessment or interpretation related to potential hazardous building materials, molds or mildews. We did not observe evidence of stained soil, pavement or stressed vegetation potentially indicative of a release of OHMs. We did observe evidence of prior heavy industrial use on the Site with old cement, bricks, coal and coal ash in exposed granular fill materials on the Site and in the river bank along the Powow river. The presence of old asphalt, brick, coal ash, and clinkers in surficial soil in the Park Area adjacent to the Site. The presence of the granular fill on the Site combined with historical Site use is considered an ASTM Phase I defined *recognized environmental condition* and warrants further testing of these fill materials to evaluate potential risks and their overall environmental quality.

The Site is bounded by the Powow river to the south. The Powow, which is tidal, shows signs of heavy urban impact. Old bricks, pipes, coal clinkers and slag, and other urban materials were observed on

the river bottom at low tide. Also visible at low tide are the remains of support structures along the riverbank of the Site. Sanborn Fire Insurance maps depict the Site as having municipal water supplied by an underground water pipe since as early as 1885. There was no documentation that municipal sewer was provided to the Site. Based on our review of historical records, buildings on the Site over time were heated and powered by steam though no separate power generating station was apparent on the Site.

HEA's scope of services was related to performance of an American Society for Testing and Materials (ASTM) Phase I Environmental Site Assessment (ASTM Phase I; ASTM E1527-05). HEA did not perform or arrange for any sampling, testing, or laboratory analysis of environmental media, building materials, residues or coatings at the site.

8.0 OPINION

ASTM Phase I-defined *Recognized Environmental Conditions (RECs)* were identified by HEA on the subject Site. These conditions related to historical use of OHMs on the Site and presence of coal ash and clinkers in surficial soil on the Site and in the immediate Site area. The area surrounding the Site, including the Site itself had shared, historical operations over time including a soap manufacturer, carriage manufacturer and more recently a shoe manufacturer. This opinion is based upon HEA's completion of an ASTM Phase I Environmental Site Assessment and did not include any additional scoped items or services not covered by this guideline (ASTM E 1527-05) or HEA's Proposal for Services with the City of Amesbury.

9.0 CONCLUSIONS

HEA has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-05 of 25 Water Street (Assessors Map 53, lot 110) in Amesbury, Massachusetts. Information was also provided for the “Park Area” which included 27, 29 and 31 Water Street (Assessors Map 53, lots 110, 104, 105 and 103 respectively). Any exceptions to, or deletions from, this practice are described in this report or detailed in **Appendix C**. This assessment has revealed evidence of *recognized environmental conditions* in connection with this Site related to historical Site use and presence of granular fill material in surficial soil. An ASTM Phase II assessment including soil and possibly ground water sampling and laboratory analysis of the Site (25 Water Street) is recommended.

10.0 DEVIATIONS

HEA's performance of this ASTM Phase I did not deviate from ASTM Practice E 1527-05.

11.0 ADDITIONAL SERVICES

This assessment has not included any additional services outside the scope of ASTM Phase I guidelines, and as such, there was no sampling, testing or laboratory analysis of environmental media, residues, coatings or building materials.

12.0 REFERENCES

HEA utilized the following documents as part of this ASTM Phase I:

1. ASTM E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, 2005.
2. Environmental Data Resources, Inc., *Electronic Database Report, 25 Water Street, Amesbury, Massachusetts*, October 22, 2012. Including historical aerial photographs.
3. Environmental Risk Information & Imaging Service (ERIS), Sanborn Fire Insurance Maps, Coverage from 1885 to 1958 and historical topographic maps from 1968 to 1987.
4. City of Amesbury Assessors, Building Department, Engineering, Health and Fire Department personal and records for the site or site area, as appropriate.
5. Executive Office of Environmental Affairs, Massachusetts Geographical Information System (MassGIS) electronic files pertaining to environmental setting of the Site and area (aquifers, surface water bodies, public water supply sources).

13.0 SIGNATURE AND QUALIFICATION OF ENVIRONMENTAL PROFESSIONALS

This ASTM Phase I was completed by Jonathan B. Higgins, C.P.G., LSP, a Principal Earth Scientist at HEA. Mr. Higgins has performed similar level of effort site assessments in the State of New Hampshire and Commonwealth of Massachusetts for the past twenty seven years. Mr. Higgins holds both a bachelor's degree (University of Massachusetts at Amherst, B.S., 1985) and a master's degree in geology (Boston University M.A., 1995). Mr. Higgins is Certified or Licensed as a Professional Geologist by the American Institute of Professional Geologists and State of New Hampshire, respectively, and is a Massachusetts Licensed Site Professional (LSP).

We trust this report meets your present requirements. If you have any questions, or require additional services, please give us a call.

Sincerely,

Higgins Environmental Associates, Inc.

Jonathan B. Higgins, C.P.G., LSP
Principal Earth Scientist

Appendices A through F are integral components of this report and findings.

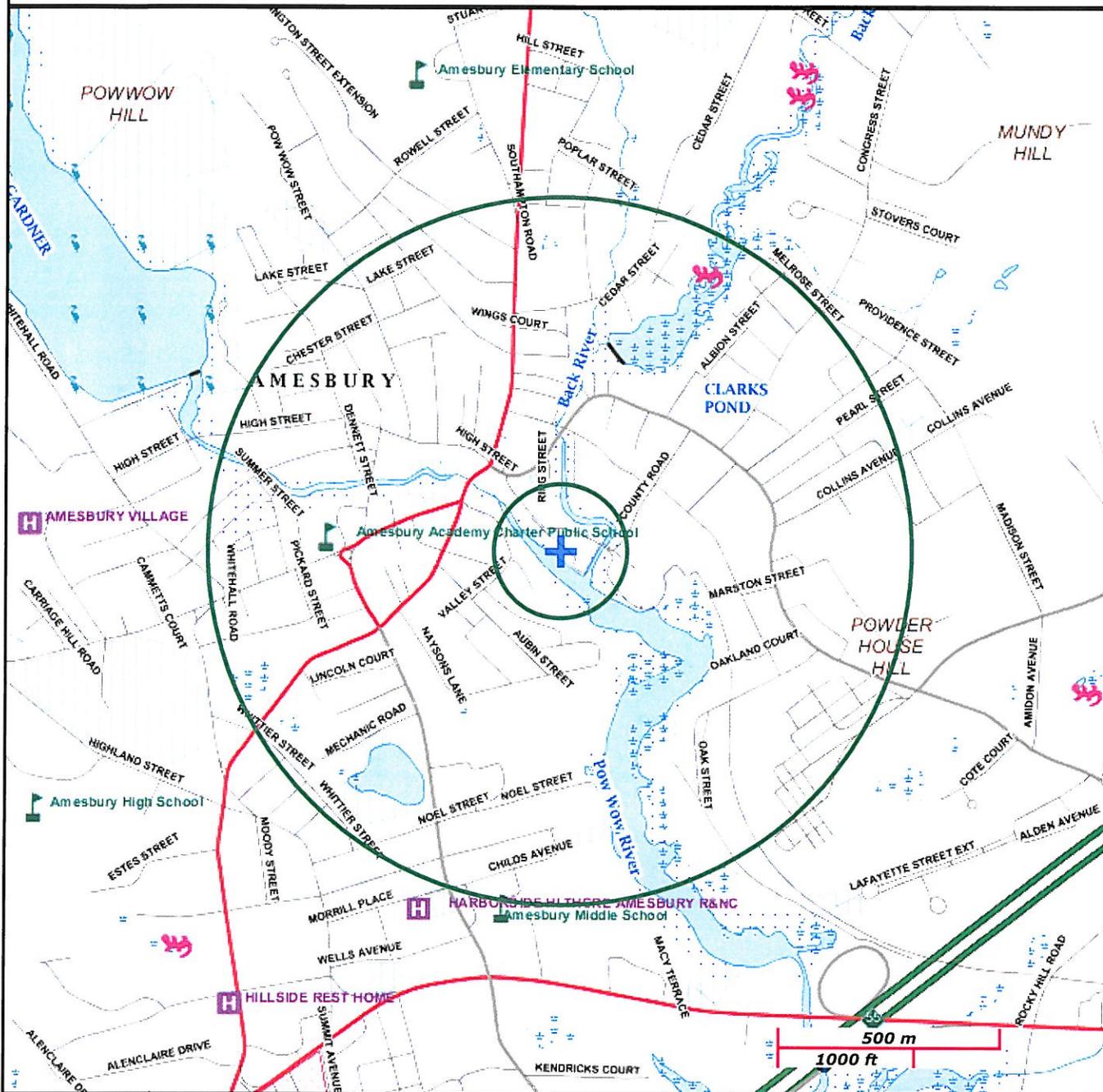
MassDEP - Bureau of Waste Site Cleanup

MCP Numerical Ranking System Map: 500 feet & 0.5 Mile Radii

Site Information:
 FIGURE 1 - 25 WATER STREET AREA
 25 WATER STREET AMESBURY, MA

NAD83 UTM Meters:
 4746651mN, 342476mE (Zone: 19)
 November 12, 2012

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: <http://www.mass.gov/mgis/>



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail	PWS Protection Areas: Zone II, IWPA, Zone A	
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct	Hydrography: Open Water, PWS Reservoir, Tidal Flat	
Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam	Wetlands: Freshwater, Saltwater, Cranberry Bog	
Aquifers: Medium Yield, High Yield, EPA Sole Source	FEMA 100yr Floodplain, Protected Open Space, ACEC	
Non Potential Drinking Water Source Area: Medium, High (Yield)	Est Rare Wetland Wildlife Hab, Vernal Pool: Cert, Potential	
	Solid Waste Landfill, PWS: Com, GW, SW, Emerg., Non-Com.	

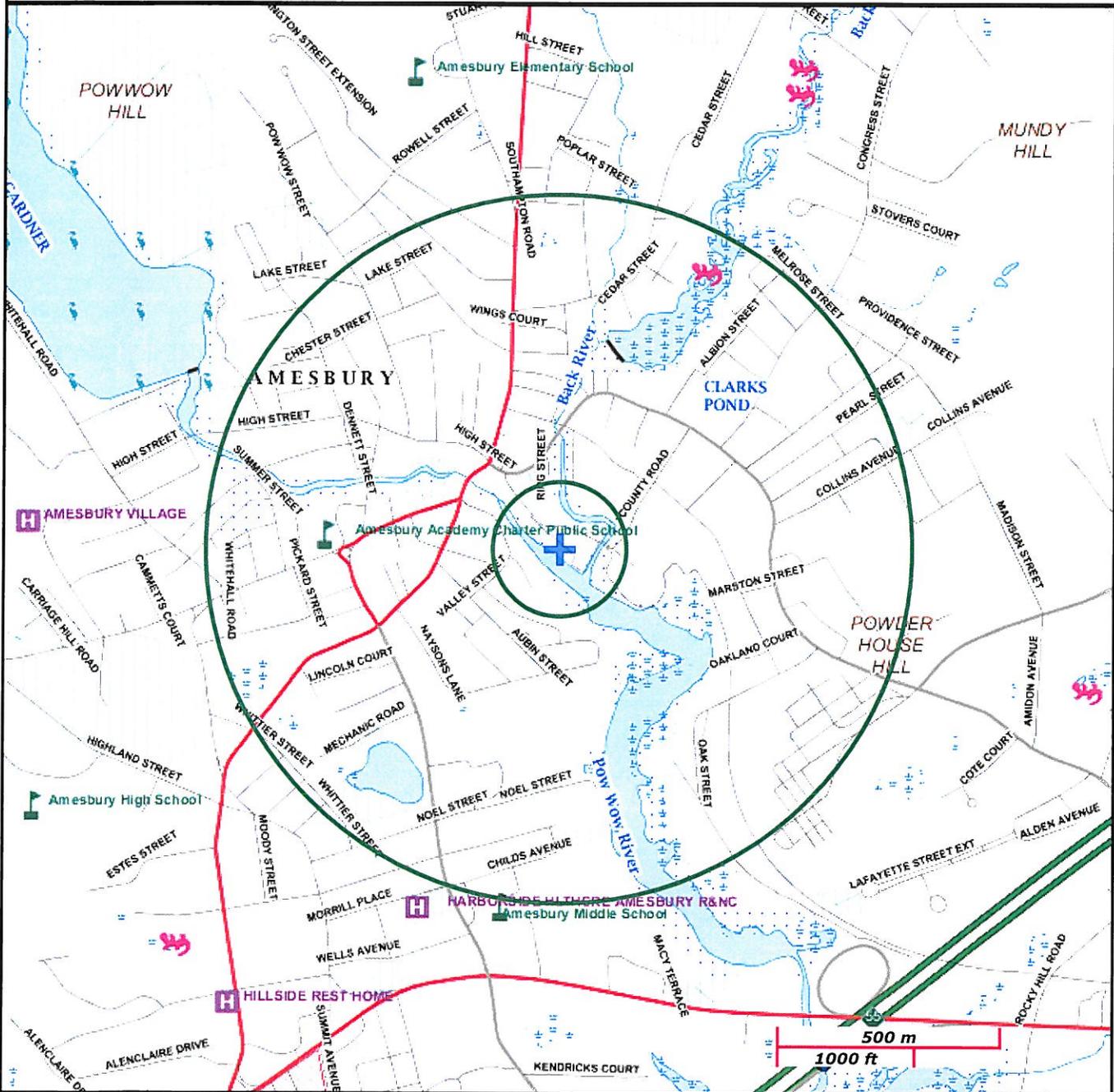
MassDEP - Bureau of Waste Site Cleanup

MCP Numerical Ranking System Map: 500 feet & 0.5 Mile Radii

Site Information:
 FIGURE 1 - 25 WATER STREET AREA
 25 WATER STREET AMESBURY, MA

NAD83 UTM Meters:
 4746651mN, 342476mE (Zone: 19)
 November 12, 2012

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: <http://www.mass.gov/mgis/>.



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail	PWS Protection Areas: Zone II, IWPA, Zone A	
Boundaries: Town, County, DEP Region; Train; Powerline, Pipeline, Aqueduct	Hydrography: Open Water, PWS Reservoir, Tidal Flat	
Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam	Wetlands: Freshwater, Saltwater, Cranberry Bog	
Aquifers: Medium Yield, High Yield, EPA Sole Source	FEMA 100yr Floodplain; Protected Open Space, ACEC	
Non Potential Drinking Water Source Area Medium, High (Yield)	Est Rare Wetland Wildlife Hab, Vernal Pool Cert, Potential	
	Solid Waste Landfill, PWS: Com GW, SW, Emerg, Non-Com	

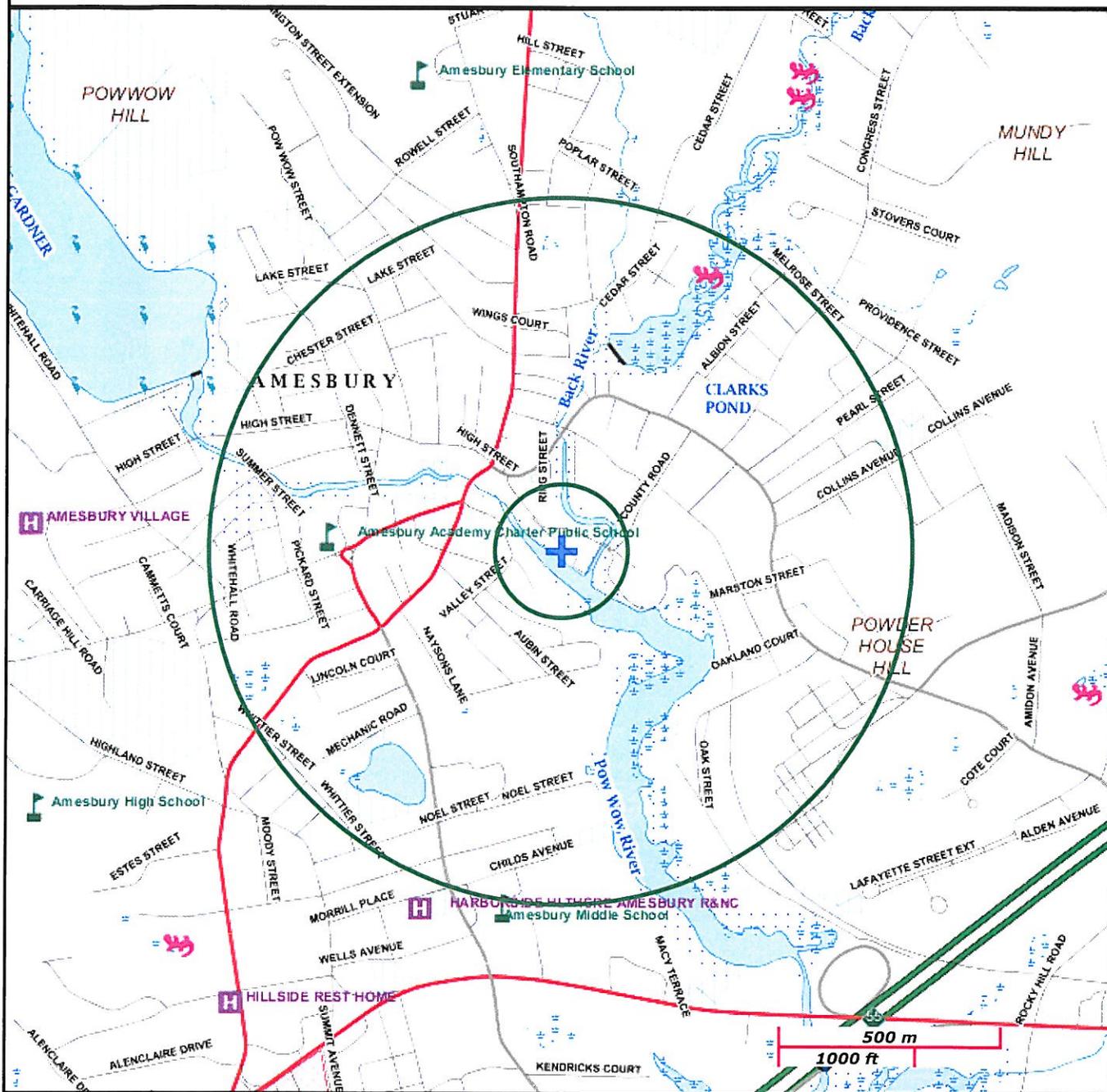
MassDEP - Bureau of Waste Site Cleanup

MCP Numerical Ranking System Map: 500 feet & 0.5 Mile Radii

Site Information:
 FIGURE 1 - 25 WATER STREET AREA
 25 WATER STREET AMESBURY, MA

NAD83 UTM Meters:
 4746651mN, 342476mE (Zone: 19)
 November 12, 2012

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: <http://www.mass.gov/mgis/>



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail	PWS Protection Areas: Zone II, IWPA, Zone A	
Boundaries: Town, County, DEP Region, Train; Powerline; Pipeline; Aqueduct	Hydrography: Open Water, PWS Reservoir, Tidal Flat	
Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam	Wetlands: Freshwater, Saltwater, Cranberry Bog	
Aquifers: Medium Yield, High Yield, EPA Sole Source	FEMA 100yr Floodplain; Protected Open Space, ACEC	
Non Potential Drinking Water Source Area. Medium, High (Yield)	Est. Rare Wetland Wildlife Hab; Vernal Pool. Cer1, Potential	
	Solid Waste Landfill, PWS: Com. GW, SW, Emerg., Non-Com.	