EA Engineering, Science, and Technology

2350 Post Road
Warwick, RI 02886
Telephone: 401-736-3440
Fax: 401-736-3423

23 June 2003

Mr. David J. Newton
Remedial Project Manager
Office of Site Remediation and Restoration
EPA Region 1
1 Congress Street
Suite 1100 (HBO)
Boston, MA 02114-2023

RE: Phase I Environmental Site Assessment
Town of Cumberland Tax Assessor's Map Plat 14, Lots 2 and 4 and Plat 15, Lot 1
Cumberland, Rhode Island

Dear Mr. Newton:

On behalf of the site owner, EA Engineering, Science, and Technology, Inc. (EA) is providing the attached Phase I Environmental Site Assessment for the property designated as Town of Cumberland Tax Assessor's Map Plat 14, Lots 2 and 4 and Plat 15, Lot 1 (proposed Berkeley Commons/River Run Development) in Cumberland, Rhode Island. For use in the EPA Administrative Record for this site, a digital copy of the Phase I is also enclosed.

If you have any questions about this property, or comments on EA's Phase I Environmental Site Assessment, please do not hesitate to contact me at 401-736-3440.

Sincerely,

EA ENGINEERING, SCIENCE,
AND TECHNOLOGY, INC.

Timothy Regan, P.E., M.B.A.
Client Manager/Senior Engineer

Cc: M. Lauterback, EPA Region 1 Enforcement Council (1)
L. Maccarone, RIDEM Office of Waste Management (1)
T. McNulty, McNulty Real Estate (2)

Phase I Environmental Site Assessment
Plat 14 Lots 2 and 4, Plat 15 Lot 1
Berkeley Commons/River Run Development
Cumberland, Rhode Island

Prepared for

E.A. McNulty Real Estate
573 Mendon Road
Cumberland, Rhode Island 02864

Prepared by

EA Engineering, Science, and Technology, Inc.
2350 Post Road
Warwick, Rhode Island 02886
(401) 736-3440

June 2003
Version: FINAL
EA Project No. 61776.01.0001

CONTENTS

LIST OF ACRONYMS

ASTM	American Society for Testing Materials
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Federal Comprehensive Environmental Response, Compensation, and Liability Information System
CONSENT	Consent Decrees database
CORRACTS	Corrective Action database
DOCKET	Civil Enforcement Docket
EDR	Environmental Data Resources, Inc.
ERNS	Emergency Response Notification System
ESA	Environmental site assessment
HMIRS	Hazardous Materials Information Reporting System
LQG	Large quantity generator
LUST	Leaking underground storage tank
NFRAP	No Further Remedial Action Planned
NPL	National Priorities List
PADS	PCB Activity Database
PCB	Polychlorinated biphenyl
RCRIS	Resource Conservation and Recovery Act Information System
REC	Recognized environmental condition
RIDEM	Rhode Island Department of Environmental Management
SHWS	State Hazardous Waste Site
SQG	Small quantity generator
SSTS	Section Seven Tracking System
TSCA	Toxic Substances Control Act
USGS	U.S. Geological Survey
UST	Underground storage tank

1. INTRODUCTION

This report presents the findings of a Phase I Environmental Site Assessment (ESA) performed by EA Engineering, Science, and Technology, Inc. (EA) for Assessor's Plat 14, Lots 2 and 4, and Plat 15, Lot 1 in Cumberland, Rhode Island.

1.1 OBJECTIVES

EA performed a Phase I ESA of Plat 14, Lots 2 and 4, and Plat 15, Lot 1 in the Town of Cumberland, Rhode Island in order to obtain information on environmental issues related to past and current use of the site.

The Phase I ESA was performed to assist the client in identifying and evaluating any recognized environmental conditions (RECs) and areas of special natural resource concern at the site in accordance with the American Society for Testing Materials (ASTM) E 1527-00, Standard Practice for Environmental Site Assessments – Phase I ESA Process. RECs are defined as the presence, or likely presence, of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, past release, or a material threat of a release into structures, on the property, or into the ground, groundwater, or surface water of the property. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment, and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not RECs.

1.2 SCOPE OF WORK

EA's Phase I ESA consisted of the following tasks.

1.2.1 Task 1 – Review Existing Background Information

EA reviewed existing background information such as aerial photographs; topographic, floodplain, and wetland maps; and state and town records, to identify past uses of the site and potential environmental concerns.

1.2.2 Task 2 – Conduct Site Inspection and Interviews

The site inspection consisted of the following steps:

- A detailed, visual site inspection
- Interviews with site owners

- A visual investigation of adjacent properties with emphasis on how they are impacting, or may have degraded the site under study

- Determination of the current and past (if possible from visual observation) use of hazardous substances and petroleum products

- Contact with regulatory and local emergency officials and/or databases to determine if the presence of hazardous substances or petroleum products has been a concern at the site.

1.2.3 Task 3 – Environmental Regulatory Database Search

EA obtained a commercially available report from a search of federal and state regulatory databases to determine the possible presence of hazardous substances or petroleum products at or within close proximity to the site. The following standard federal and state environmental record sources and associated radius of review were searched:

- Federal National Priorities List (NPL) and delisted NPL (1-mi radius)

- Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) facilities (1-mi radius)

- Federal CERCLIS No Further Remedial Action Planned (NFRAP) list (0.5-mi radius)

- Federal Resource Conservation and Recovery Act Information System (RCRIS) Corrective Action database (CORRACTS) (1-mi radius)

- Federal RCRIS non-CORRACTS treatment, storage, and disposal facilities database (1-mi radius)

- Federal RCRIS (0.25-mi radius for generators)

- Federal Emergency Response Notification System (ERNS) (0.25-mi radius)

- Rhode Island Department of Environmental Management (RIDEM) Inactive Hazardous Waste Disposal Sites list (1-mi radius; 0.5-mi radius for State CERCLIS equivalent)

- RIDEM permitted solid waste facilities/landfill database (0.5-mi radius)

- RIDEM leaking underground storage tank (LUST) incident reports (0.5-mi radius)

- RIDEM registered underground storage tanks database (0.25-mi radius).

Additional federal environmental records sources consisted of a search of the following:

- U.S. Environmental Protection Agency (EPA) Biennial Reporting System
- Superfund Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Consent Decrees database (CONSENT)
- EPA Polychlorinated Biphenyl (PCB) Activity Database (PADS)
- EPA Toxic Chemical Release Inventory System (TRIS)
- EPA Toxic Substances Control Act (TSCA) database
- EPA Civil Enforcement Docket (DOCKET)
- EPA Section Seven Tracking System (SSTS).

EA also conducted a review of applicable records from RIDEM pertaining to the site in order to verify the database search.

1.3 SIGNIFICANT ASSUMPTIONS

EA's assumptions on pre-existing conditions are based on available site photographs and not on conditions existing prior to the scope of historical photographs.

1.4 LIMITATIONS AND EXCEPTIONS

EA's assessment represents a review of available information relating to the site that was obtained by methods described above and did not include sampling or other monitoring activities at the property. No exceptions, other than the unavailability of historical use documentation at intervals of 5 years or less, were noted from the performance of ASTM-mandated research, interviews, and inspections. Although there were gaps of greater than 5 years in the historical use information discovered, sufficient information was available to provide an accurate evaluation of the historical uses of the site and surrounding areas.

EA makes no legal representations whatsoever concerning any matter including, but not limited to, ownership of any property or the interpretation of any law. EA further disclaims any obligations to update the report for events taking place after the time during which the assessment was conducted.

1.5 SPECIAL TERMS AND CONDITIONS

The statements, opinions, and conclusions contained in this report are based solely upon the services performed by EA as described in this report, the Scope of Work as established for the report, and the terms and conditions of the agreement with the client. In performing these services and preparing the report, EA relied upon the work and information provided by others, including public agencies, whose information is not guaranteed by EA.

In addition, the client has been advised and understands that the absence of contamination in one location does not necessarily preclude the finding of contamination in other locations offsite that were not investigated in preparing this report.

1.6 DISCLAIMER

This report is intended for the client's sole and exclusive use and not for the benefit of others and may not be used or relied upon by others unless permission is granted in writing by EA. The findings of the report are limited to those specifically expressed in the report. No other representations or warranties are given by EA, and no additional conclusions should be reached, or representations relied on, other than those expressly stated in the report and as limited by EA terms and conditions.

2. SITE DESCRIPTION AND HISTORY

The site inspection was performed by EA representative Jill Ann Parrett on 29 May 2003. The EA representative met with Mr. Thomas McNulty of E.A. McNulty Real Estate for an interview and site tour. Photographs of the site are presented in Appendix A.

2.1 SITE LOCATION AND LEGAL DESCRIPTION

The site is located to the west of Mendon Road (State Route 122) in the Town of Cumberland, Providence County, Rhode Island (Figure 1). The site is identified on the Town of Cumberland Tax Assessor's Map as Plat 14, Lots 2 and 4, and Plat 15, Lot 1.

2.2 SITE AND VICINITY CHARACTERISTICS

The site and site area are shown on the Attleboro 7.5-minute U.S. Geological Survey (USGS) topographic map, 1975 (Figure 1). The site is located in an area of mixed industrial/commercial/ residential development. The site is bordered to the south by wetlands, Providence and Worcester Railroad lines, the former J.M. Mills Landfill, a sand and gravel mining operation, and the Blackstone River. Residential development, as both single and multi-family units, directly abuts the property to the north, and residences are also located within 0.5 mi to the east and west. Most of the adjacent properties are residential properties along Riverview Drive and Sunset Avenue. Areas of commercial retail development are located to the north of the site on Mendon Road. Also within 0.5 mi of the site are miscellaneous industrial developments, particularly to the north and west along the Blackstone River.

2.3 DESCRIPTION OF STRUCTURES, ROADS, AND IMPROVEMENTS

The site is currently undeveloped, but extensive earthwork activities have occurred related to site operations as a sand and gravel pit. The site is accessed by construction personnel by an unimproved access road through the central portion of the site, between the proposed Berkley Commons (Plat 14) and River Run (Plat 15) Developments.

There are currently no buildings on the site. On the Plat 15 side of the development, site development was limited to a reinforced concrete base for the material crusher (Appendix A, Photo 1) and a scale house. On the Plat 14 side of the site, the Admiral Inn (since demolished) was located on the eastern site portion, abutting Mendon Road. This structure was not part of the sand and gravel operations, and the lot was transferred to the current site owner in 1993. Aerial photographs from 1939, 1951, 1965, 1972, 1972–1974, 1981, and 1992 all show no additional development on the site.

Currently, public sewer service is being installed at the site to tie into the Narragansett Bay Commission lines running adjacent and parallel to the Providence and Worcester Railroad for

Plat 15 and along Mendon Road for Plat 14. There will be storm drainage retention ponds constructed at both developments. Public water is supplied by the Town of Cumberland. A Narragansett Electric power line easement runs north-to-south across the River Run Development portion of the site. Also, electrical power lines exist along Mendon Road.

2.4 CURRENT USES OF THE SITE

Currently, the site is in the early stages of site preparation for proposed residential development. Extensive clearing, grubbing, fill placement, and grading have occurred to date on the Plat 14 (eastern) portion of the site. Foundations have been constructed across this portion of the site. The Plat 15 (western) portion of the site is vegetated with scrubby woody vegetation and grasses and is characterized by a highly disturbed topography.

A portion of the site is currently included in Operating Unit 2 of the Peterson Puritan NPL site by the EPA. The site is not listed on the RCRIS CORRACTS database, generators database, or treatment, storage, and disposal facility databases. The site is not listed on the state list of hazardous waste sites. No spills at the site have been reported on either the ERNS or the U.S. Department of Transportation Hazardous Materials Information Reporting System (HMIRS).

2.5 PAST USES OF THE SITE

A review of historical aerial photographs indicates that the site was used primarily as open space from 1939 until sometime prior to 1951, when aerial photographs indicate the presence of some site clearing and sand and gravel pit operations. The site has been under the same ownership since the property was purchased by the current owners, E.A. McNulty, in 1934, with the exception of the former Admiral Inn parcel on Plat 14. A review of past records did not indicate that the site was used for industrial or manufacturing activities, or for the disposal of hazardous or non-hazardous waste.

2.6 CURRENT AND PAST USES OF ADJOINING PROPERTIES

The site is in an area consisting primarily of residential development. Sporadic commercial development exists to the north along Mendon Road. Abutting the site to the south/southwest is a sand and gravel mining operation (Appendix A, Photo 2). Further to the north is an area of concentrated industrial development along Martin Street (Appendix A, Photo 2).

EA visually inspected the neighboring properties and their operations from the site and publicly accessible areas. These inspections did not reveal visual evidence of environmental contamination (e.g., stressed vegetation or stained pavement) immediately adjacent to the boundaries of the site. No outdoor industrial or manufacturing operations were noted on any properties adjacent to the site. Review of historic documents did not indicate that any adjoining properties were used for industrial or manufacturing purposes, or for the disposal of hazardous or non-hazardous waste.

3. ENVIRONMENTAL SETTING

3.1 PHYSIOGRAPHY

The site is located in the Town of Cumberland, Providence County, Rhode Island. The site is located on locally variable terrain approximately 115 ft above mean sea level. According to the Federal Emergency Management Agency flood insurance rate map, the southern portion of the site is located within the 100-year flood zone. Drainage patterns in the area of the site are generally to the south and southwest, toward wetlands and New River. National Wetlands Inventory maps indicate wetlands on the site (Appendix A, Photo 3).

3.2 GEOLOGY

The site soils are characterized in the Soil Survey of Rhode Island (1981) as "Pits, gravel," consisting of areas that have been excavated for sand and gravel. The origin of this deposit is outwash plains and flood terraces from the Blackstone River to the south. Bedrock in the area is classified as Blackstone Metamorphics (including marble, quartzite, and gneiss). The undisturbed depth to bedrock in the area is estimated at approximately 100 ft below ground surface. However, large quantities of overburden material have been removed from the site and numerous bedrock outcrops are visible throughout the site (Appendix A, Photo 4). The actual depth to bedrock at the site is assumed to be less than 100 ft.

3.3 HYDROGEOLOGY

Groundwater resources are not used at the site or adjacent properties for domestic, fire suppression, or production purposes. No groundwater wells were observed on the site. Groundwater generally would be expected to flow to the southeast and south, based upon the topographic gradient, toward major water features (New River, site wetlands, and the Blackstone River). Monastery Brook enters the site from the north, adjacent to the abutting residential development, and flows south and southeast into site wetlands (Appendix A, Photo 5). There is also a man-made temporary retention area for stormwater runoff from the adjacent residential area to the north. Overflow from this retention area flows south and southeast into site wetlands (Appendix A, Photo 6). Currently, infiltration is the dominant mode of stormwater management at the site, but an increase in impervious area will increase stormwater runoff. Stormwater management permits for site development activities and for the proposed developments following construction have been obtained by the site owners from RIDEM. RIDEM classifies the ground water at the site as GAA/GAA-NA, which is presumed to be suitable for human consumption without treatment, but is currently in non-attainment of GAA standards.

4. SITE RECONNAISSANCE AND INTERVIEWS

During the 29 May 2003 site inspection, EA met and spoke with Mr. Thomas McNulty, a representative of E.A. McNulty Real Estate, the current site owner.

4.1 HAZARDOUS SUBSTANCES, MATERIALS, AND WASTES

4.1.1 Management and Storage of Hazardous Substances and Materials

There is no evidence of any management or storage of hazardous substances and materials at the site. The site has remained undeveloped throughout available site records, from at least 1939 to the present. The only example of a potentially hazardous material used at the site was MC-2, a dust suppression oil-based spray. This substance was reportedly used on site access roads during the 1950s and 1960s.

4.1.2 Generation, Storage, and Disposal of Hazardous Waste

There is no evidence of generation, storage, or disposal of hazardous waste on the site. The site has remained principally undeveloped for at least 63 years.

4.2 SOLID WASTE AND NON-HAZARDOUS WASTE MANAGEMENT

According to site records, there has been no solid waste or non-hazardous waste generated, stored, disposed, or managed at the site.

During the site inspection, isolated examples of small-scale solid waste dumping were observed at the site (Appendix A, Photos 7 and 8). No indication was found of environmental impacts from this non-hazardous waste disposal. The site representative indicated that this dumping was conducted without the knowledge or permission of the site owners.

The site representative, Tom McNulty, addressed the historical dumping of fine soil material around the site. When the aggregate was washed in preparation for shipment and sale, the residual silt/sand and water mixture was either piled or pumped to the southwest of the site. No chemicals were used in the washing of gravel products and this material is assumed to have been non-hazardous.

4.3 STORAGE TANKS

4.3.1 Underground Storage Tanks

The site is not listed on the state database of registered underground storage tank (UST) facilities or LUST facilities. However, the Admiral Inn was located along Mendon Road on the eastern portion

of the site and had a 1000-gal No. 2 heating oil UST registered with RIDEM. The tank was removed as part of the building demolition and was not on the site when the parcel was transferred to E.A. McNulty in 1993. During EA's inspection, no evidence of USTs (fill or vent pipes) at the site was identified. EA did not identify any environmental concerns associated with the use of USTs at the site.

4.3.2 Aboveground Storage Tanks

According to the site representative, there was one aboveground storage tank located at the site, for diesel fuel. The former location of this tank was in the vicinity of the scale house. No evidence of staining or scrap tanks was noted during the site inspection.

4.4 POLYCHLORINATED BIPHENYLS MANAGEMENT

Oils containing PCBs were used in the United States in electrical equipment until 1979, when the EPA banned their use in new equipment. Existing equipment containing PCBs is allowed to remain in operation. PCBs contained in existing equipment are federally regulated under the TSCA.

Electric power is supplied to the site by Narragansett Electric through overhead power lines. During the site inspection, no pad-mounted transformers were observed. EA did not identify any environmental concerns associated with the use and management of equipment containing PCBs at the site.

4.5 WASTEWATER AND STORMWATER MANAGEMENT

Domestic water will be supplied to the site developments by the Town of Cumberland via the public distribution system. The Town of Cumberland obtains the majority of its public drinking water from the Pawtucket Reservoir in Cumberland, Rhode Island.

One public drinking water supply well was located less than 0.125 mi east of the site, the Lenox Street Well, downgradient of the site. This well was abandoned due to solvent contamination from an unknown upgradient source in 1979. Site groundwater is not used for any public consumption purposes.

4.5.1 Wastewater Management

No activities at the site produce wastewater; therefore, there is currently no need for wastewater management at the site. Preparations are being made to establish municipal sewer service to the site. Abutting sites are serviced by municipal sewer.

4.5.2 Stormwater Management

No storage or handling of materials occurs outdoors at the site; therefore, the threat of stormwater contamination is low. No permits regulating stormwater discharge are required by the municipality. The federal stormwater regulations do not affect stormwater management practices at the site since there is no industrial or manufacturing activity.

As a result of construction activities at the site, the site owner has obtained the proper stormwater management permits from RIDEM. Per RIDEM requirements, erosion control measures have been installed throughout the site. Permits have also been obtained for the proposed development.

Contamination is not expected to reach the site through stormwater draining from the adjacent residential development. EA did not identify any environmental concerns associated with the generation and management of stormwater at the site.

4.6 HERBICIDE AND PESTICIDE USE

According to records reviewed by EA, pesticides and herbicides are not and have not historically been stored on the site. EA did not identify any current use of herbicides, pesticides, or rodenticides at the site. EA did not identify any environmental concerns associated with the current or historic use of herbicides and pesticides at the site.

4.7 SUSPECT ASBESTOS-CONTAINING MATERIAL

No suspect asbestos-containing material was observed at the site, as the site is currently vacant. EA did not identify any environmental concerns associated with the presence of asbestos-containing material at the site.

4.8 RADON EXPOSURE

The nationwide average for radon gas in private dwellings is between 1 and 2 picocuries per liter (pCi/L) of air. The threshold of concern for residential dwellings according to EPA guidelines is 4 pCi/L. The area is not known for radon issues; therefore, it is not expected that the accumulation of radon gas would be a serious environmental concern at the site.

4.9 AIR POLLUTION CONTROL

Air emissions are regulated by federal, state, and local regulations established in response to the 1990 Clean Air Act amendments. No visible air emissions or evidence of pollution from the site improvements were observed, and no odors or other nuisance conditions were detected at the time of the inspection. EA did not identify any environmental concerns associated with air emissions at the site.

4.10 PHYSICAL SETTING ANALYSIS

EA did not identify any potential sources of contamination that may impact the site. Groundwater resources are not used by the site for domestic, fire suppression, or production purposes, so potential groundwater migration of hazardous substances would not pose an immediate concern to the site. The site itself is unlikely to affect neighboring parcels adversely.

4.11 OTHER CONDITIONS OF ENVIRONMENTAL CONCERN

EA did not identify any other areas of potential environmental concern during the site inspection.

4.12 INTERVIEWS

EA interviewed Mr. Thomas McNulty, the site representative, who provided information concerning the historical and current activities at the site.

5. ENVIRONMENTAL RECORDS REVIEW

The purpose of the environmental records review is to obtain and review records that will help to identify RECs in connection with the site and surrounding vicinity.

EA performed a review of available regulatory files to evaluate potential environmental concerns near the site. A state and federal database search was conducted by Environmental Data Resources, Inc. (EDR). The EDR report is provided in Appendix C. In addition, an effort was made to assess the likelihood that any additional facilities may result in RECs in connection with the site.

The standard federal environmental record sources included:

- EPA CERCLIS database
- EPA NPL
- EPA RCRIS
- RCRA CORRACTS
- EPA ERNS.

The standard state environmental record sources included the following:

- RIDEM databases
- Regulated UST list
- RIDEM LUST: RIDEM Spill Incident Corrective Actions – Leaking Tanks database
- RIDEM Inventory of State Hazardous Waste Sites (SHWSs)
- RIDEM Solid Waste Facility Report of solid waste facilities and landfills.

Additional federal environmental record sources consisted of a search of the following:

- EPA Biennial Reporting System
- Superfund CERCLA Archive of former NPL facilities with NFRAP
- EPA PADS
- RCRA Administrative Action Tracking System
- EPA DOCKET
- Information on civil and administrative actions filed by the Department of Justice for the EPA

- EPA TRIS
- EPA TSCA database
- SSTS (formerly FATES, this system tracks the registration of pesticide-producing establishments and tracks the types and amounts of pesticides, active ingredients, and devices which are sold, produced, or distributed annually).

5.1 STANDARD ENVIRONMENTAL RECORDS SOURCES

5.1.1 Onsite Regulatory Review – Standard Environmental Record Sources

The site was not found listed in the standard environmental regulatory databases searched. During the site inspection, EA did not observe any evidence of environmental concerns related to current or past tenants or operations.

5.1.2 Offsite Regulatory Review – Standard Environmental Record Sources

The results of the review of the standard environmental records sources are summarized below:

- One NPL site is located within a 1-mi radius of the site—the Peterson/Puritan, Inc. site, located on Martin Street, less than 0.125 mi to the southwest. A portion of the subject site is included in Operating Unit 2 of this NPL site.
- Two CERCLIS sites—the Peterson/Puritan site and the J.M. Mills Landfill—are situated less than 0.125-mi from the site.
- Three SHWS—the Peterson/Puritan site, the J.M. Mills Landfill, and the Lenox Street Well—are located within a 0.25-mi radius of the site. The J.M. Mills Landfill is being addressed in Operating Unit 2 of the Peterson/Puritan site. In addition, it is downgradient of the subject site. The Lenox Street Well itself is not contributing contamination to any surrounding areas, but was instead closed in 1979 following the discovery of solvent contamination within the public water supply. The source of this contamination is currently unknown.
- No RCRA CORRACTS facilities are located within a 1-mi radius of the site.
- One large quantity generator (LQG) of hazardous waste under RCRA registered with the State of Rhode Island is located within 0.25 mi of the site. The Peterson/Puritan site was cited with several violations during its operations until 1994.

- Three small quantity generators (SQGs) of hazardous waste under RCRA registered with the State of Rhode Island are located within a 0.25-mi radius of the site—Pascale Landscape Construction, Inc. at 39 Old Mendon Road (north), Ben's Marine at 555 Mendon Road (northwest), and Vallerie Transportation Service, Inc. at 17 Old Mendon Road (northwest). No violations are on record for any of these generators. Although upgradient of the site, no contamination is expected from these sources.

- No RCRA treatment, storage, and disposal facilities are listed on the RCRIS database within a 0.5-mi radius of the site.

- No state-listed landfills or solid waste disposal sites are listed within a 0.5-mi radius of the site.

- Four LUST facilities are located within 0.5 mi of the site, with one site located within 0.25 mi of the site. The Sunoco Service Station formerly located at 390 Mendon Road was subject to a soil removal in March 1999 to remediate soil contaminated by gasoline from a UST. This LUST site is crossgradient of the subject site and is not expected to have impacted site groundwater. None of the three other LUST facilities are expected to have impacted the site.

- Four UST facilities are listed within a 0.25-mi radius of the site:

  — Pascale Landscape Construction, Inc. (69 Old Mendon Road to the north)
  — Admiral Inn (490 Mendon Road to the east)
  — Kosowski Insurance Co. (555 Mendon Road to the northwest)
  — Vallerie Transportation Service, Inc. (17 Old Mendon Road to the northwest).

  No violations, spills or leaks are reported at these facilities; therefore, EA concludes that they pose a low risk of impacting the site.

- No spills at the site have been reported on the ERNS database.

5.2 ADDITIONAL ENVIRONMENTAL RECORDS SOURCES

5.2.1 Onsite Regulatory Review – Additional Environmental Record Sources

Neither the site nor its current tenants were found listed on any of the additional environmental regulatory databases searched.

5.2.2 Offsite Regulatory Review – Additional Environmental Record Sources

The adjacent properties were not found listed on any of the additional environmental regulatory databases searched.

Based upon the distance and downgradient relationship to the site, EA concludes that it is unlikely that any of the listed facilities pose an environmental concern to the site.

5.3 HISTORICAL OWNERSHIP AND SITE USAGE

Information on previous site ownership and use was obtained from interviews with the site representatives and aerial photography. The site was purchased by the current owner in 1934. Prior to this time, it was open space or raw land. By 1939, a portion of the site had been subdivided and the residential development to the north was constructed. Between the 1939 and 1951 aerial photographs, sand and gravel mining operations had begun at the site. Operations appeared to peak by the early 1970s and to have ceased by the present time. With the exception of the Admiral Inn parcel along Mendon Road on Plat 14, the entire site has been under the current ownership for approximately 70 years.

5.3.1 Historical Records Analysis

EA reviewed historic USGS topographic maps, city directories, and aerial photographs.

5.3.1.1 Aerial Photographs

EA performed a search for and obtained aerial photographs of the site area dated 1939, 1951, 1965, 1972, 1981, and 1992. Copies of the statewide and private aerial photographs are included as Appendix B.

- **1939**—Construction of the residential development abutting the property to the north had begun at this time. Also, construction of access roads and vegetation clearing appear to be the only site operations at this time. Sand and gravel mining had not yet begun. The Admiral Inn structure is visible on the eastern portion of the site. Development in the surrounding areas was present but not at its current concentration.

- **1951**—The Plat 14 (eastern) portion of the site has begun supporting sand and gravel mining operations at this time. Clearing is becoming more widespread along the southern edge of the Plat 15 (western) portion of the site, and limited sand and gravel mining operations appear to have begun.

- **1965**—Extensive mining operations and widespread alteration of site topography have occurred at this time. The crusher is visible on Plat 15. There has also been limited alteration (probably filling) of New River to the south, particularly along Plat 15.

- **1972**—Filling of New River has continued and the water edge has been significantly moved in this photograph. Sand and gravel operations have also continued. Operations have begun at the former J.M. Mills Landfill to the south.

- **1972–1974 (from site representative)**—This privately-procured aerial series focuses just on the site and reveals a greater detail, as well as color. The filling of the wetlands with fine material is obvious in these photos due to the color and turbidity of the water.

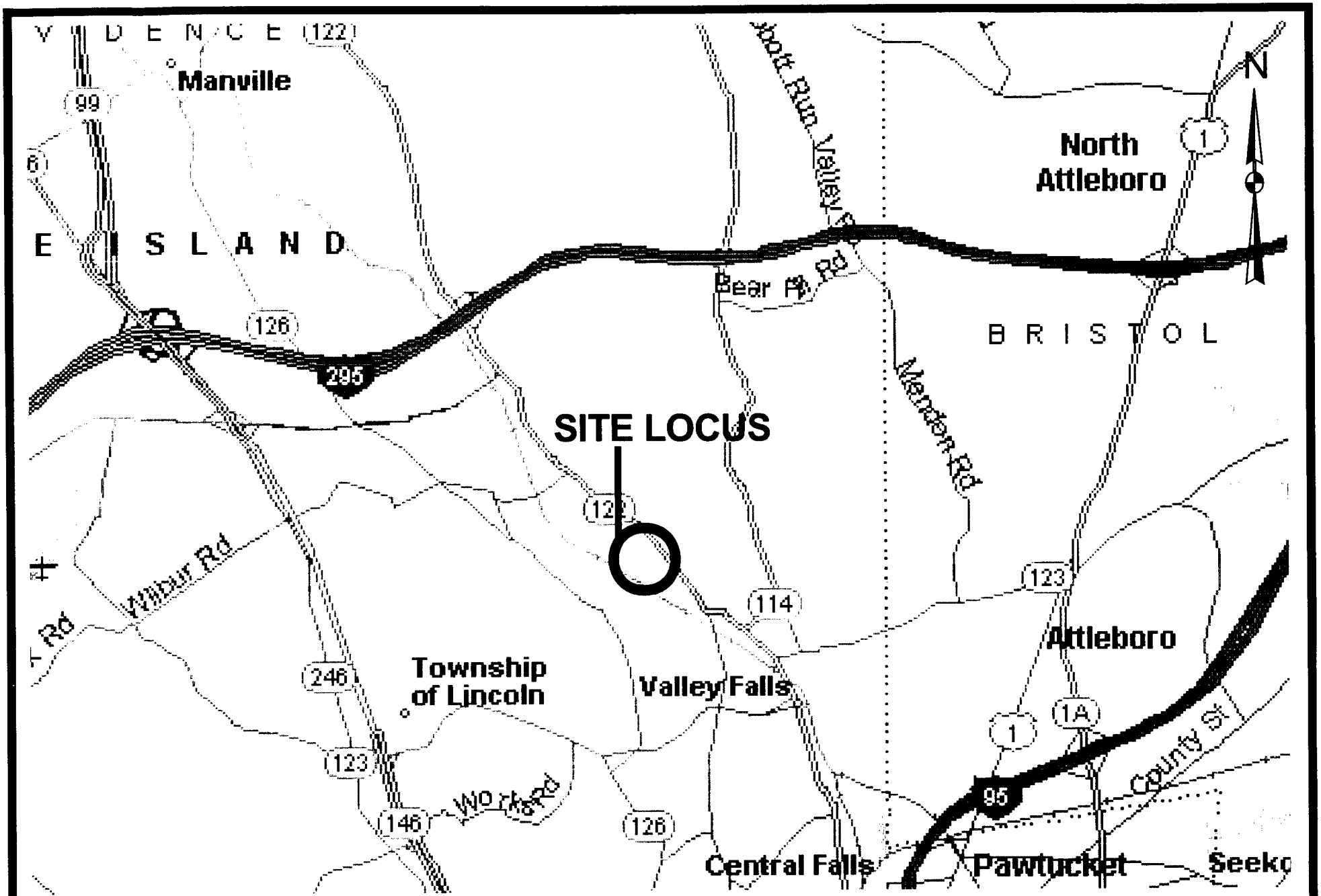
- **1981**—This photograph depicts little change from the 1972 aerial photograph except continued alteration of New River.

- **1992**—The crusher, scale house, and Admiral Inn are not present in this photograph. Topography reflects current conditions, with the exception of foundation construction on Plat 14.

No apparent landfills, lagoons, or operations that might lead to contamination of the site were identified on the referenced aerial photographs. Review of aerial photographs did not suggest any environmental concerns based on past occupancy or use.

6. CONCLUSIONS AND RECOMMENDATIONS

The Phase I ESA revealed no evidence of RECs associated with hazardous substances or petroleum products, asbestos-containing material, radon, lead-based paints, or areas of special natural resource concern at the site.



EA ENGINEERING, SCIENCE, AND TECHNOLOGY	2350 POST ROAD WARWICK, RI 02886	FIGURE 1 SITE LOCUS		EA-MCNULTY CUMBERLAND, RHODE ISLAND		
PROJECT MGR	DESIGNED BY	DRAWN BY	CHECKED BY	SCALE	DATE	
TR	SW	SW	JP	--	06/11/03	

Appendix A

Site Photographs

APPENDIX A SITE PHOTOGRAPHS

Photo 1: Remnants of the reinforced concrete material crusher foundation.

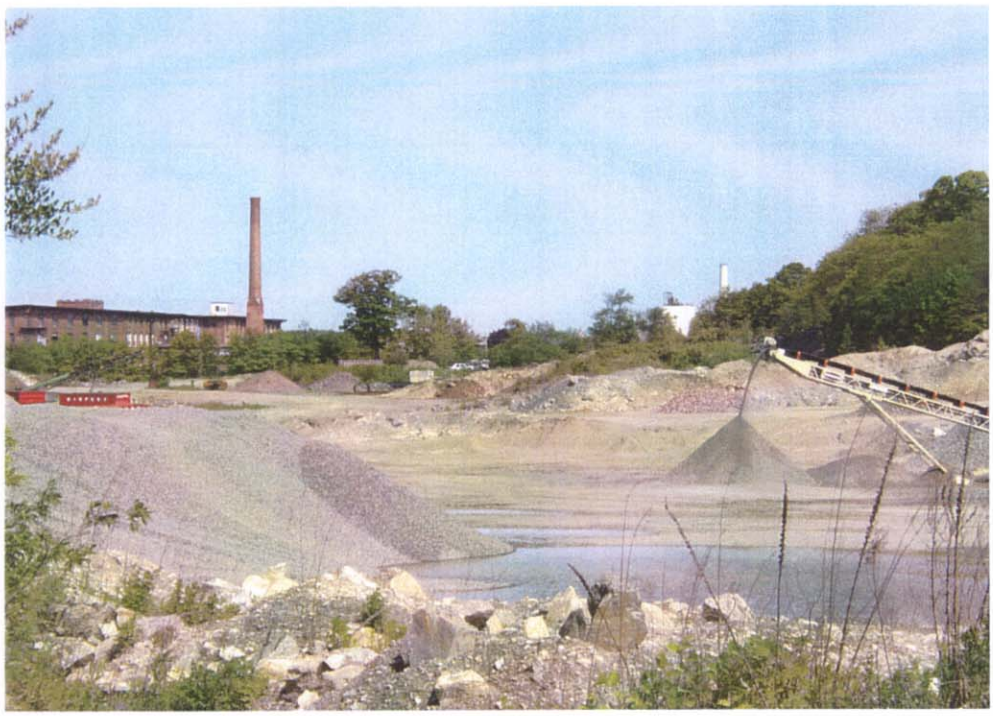


Photo 2: The sand and gravel mining operation to the southwest of the site. Industrial development along Martin Street can be seen in the background.

Photo 3: Vegetation in wetland south of the site.

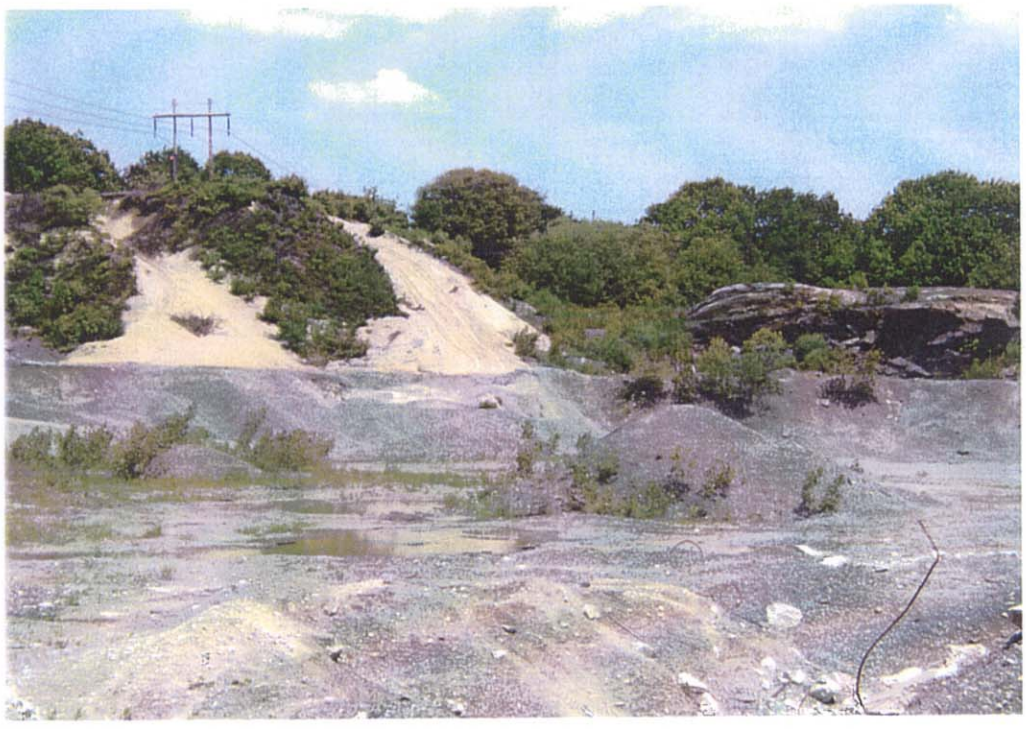


Photo 4: Topography created by sand and gravel mining operations. A bedrock outcrop can be seen on the right.

Photo 5: Monastery Brook just upstream of the culvert under the access road.

Photo 6: Retention pond for stormwater runoff from residential development to the north.

Click Here to Continue to Appendix B

Photos 7 and 8: Miscellaneous debris along southern edge of Plat 14.