

10479

**FINAL SUMMARY REPORT
FOR
EXPANDED SITE INSPECTION
CENTREDALE MANOR SITE
NORTH PROVIDENCE, RHODE ISLAND**

Prepared For:
U.S. Environmental Protection Agency
Region I
Office of Site Remediation and Restoration
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Boston, MA 02114-2023

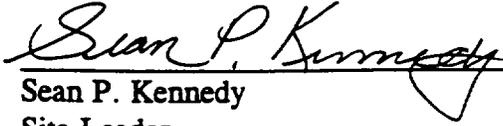
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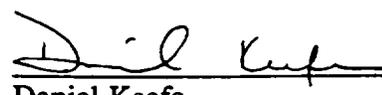
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9 March 1999

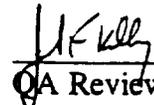
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Work Order No. 11098-031-001-5366-70

DISCLAIMER

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INTRODUCTION

The Roy F. Weston, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START) was requested by the U.S. Environmental Protection Agency Region I (EPA Region I), Office of Site Remediation and Restoration to perform an Expanded Site Inspection (ESI) of the Centredale Manor Site consisting of the Centredale Manor property, located at 2074 Smith Street in North Providence, Providence County, Rhode Island, portions of the Brook Village property, and sections of the Woonasquatucket River. Tasks were conducted in accordance with technical specifications provided by EPA Region I. A Preliminary Assessment (PA) of the Centredale Manor property was conducted by the NUS Corporation, Inc. Field Investigation Team (NUS/FIT) in August 1986. NUS/FIT conducted a Screening Site Inspection (SSI) of the Centredale Manor property in October 1990, and WESTON completed a Site Inspection Prioritization (SIP) of the Centredale Manor property in May 1997. These previous investigations indicated the presence of organic and inorganic substances in soil, sediment, and surface water on and in the vicinity of the property. On the basis of the information provided in these reports, the Centredale Manor Site ESI was initiated.

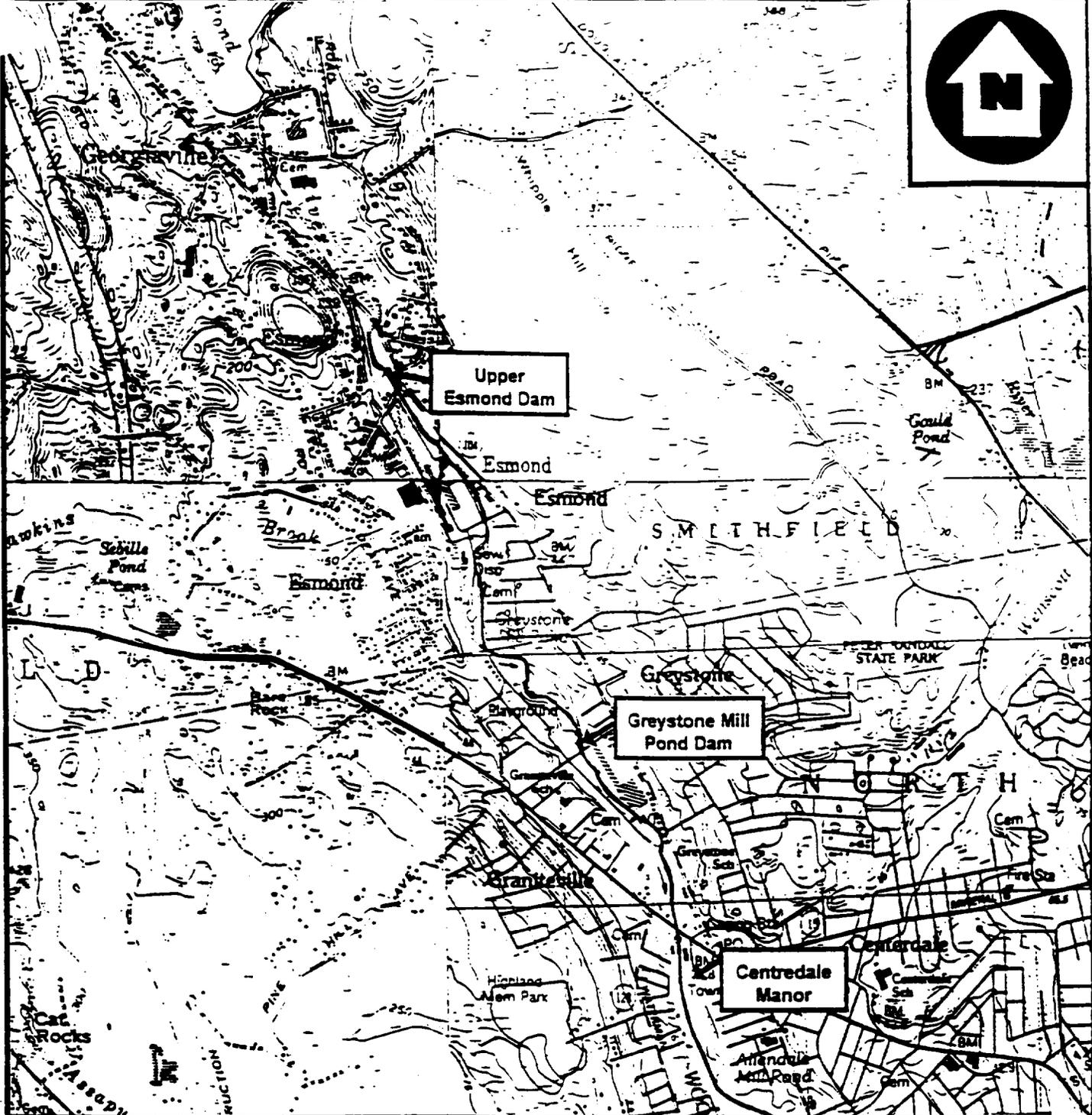
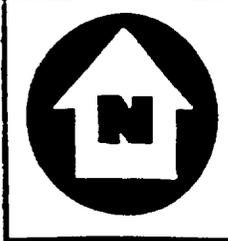
Background information used in the generation of this report was obtained through file searches conducted at the EPA Region I and Rhode Island Department of Environmental Management (RI DEM), telephone interviews with town officials, conversations with persons knowledgeable of the Centredale Manor Site, and conversations with other Federal, State, and local agencies.

This package follows the guidelines developed under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, commonly referred to as Superfund. However, these documents do not necessarily fulfill the requirements of other EPA Region I regulations such as those under the Resource Conservation and Recovery Act (RCRA) or other Federal, State, or local regulations. ESIs are intended to provide a preliminary screening of sites to facilitate EPA Region I's assignment of site priorities. They are limited efforts and are not intended to supersede more detailed investigations.

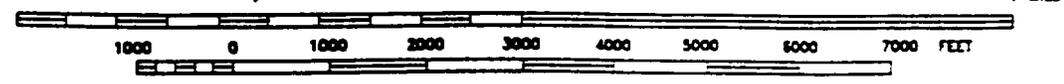
SITE DESCRIPTION

The Centredale Manor property, portions of the Brook Village property, and sections of the Woonasquatucket River (upstream of, adjacent to, and downstream of the Centredale Manor property) were investigated as part of the Centredale Manor Site ESI investigation (Figures 1A, 1B, and 1C). The Centredale Manor property is located at 2074 Smith Street (also referred to as Route 44 in the CERCLIS database) in North Providence, Providence County, Rhode Island at geographic coordinates 41° 51' 29.5" north latitude and 71° 30' 28.5" west longitude [13].

According to the Town of North Providence Tax Assessor's Office, the 4.74-acre Centredale Manor property is registered as Plat 14, Lot 250. The property is bordered by Brook Village Apartments to the north, a small wooded area and an unpaved perennial drainage channel (drainage channel) to the east, a wooded area to the south, and the Woonasquatucket River to the west (Figure 2). George Waterman Road and a residential area are located approximately 100 feet west of the river, up a steep embankment [1, pp. 1, 3].



BASE MAP IS A PORTION OF THE FOLLOWING 7.5 X 15' MINUTE U.S.G.S. QUADRANGLE(S):
 PROVIDENCE, RI 1987; PAWTUCKET, RI-MA 1949 (PHOTOREVISED 1970 AND 1975);
 GEORCIAYVILLE, RI 1954 (PHOTOREVISED 1970 AND 1975); NORTH SCITUATE, RI 1955 (PHOTOREVISED 1970 AND 1975)



QUADRANGLE LOCATION

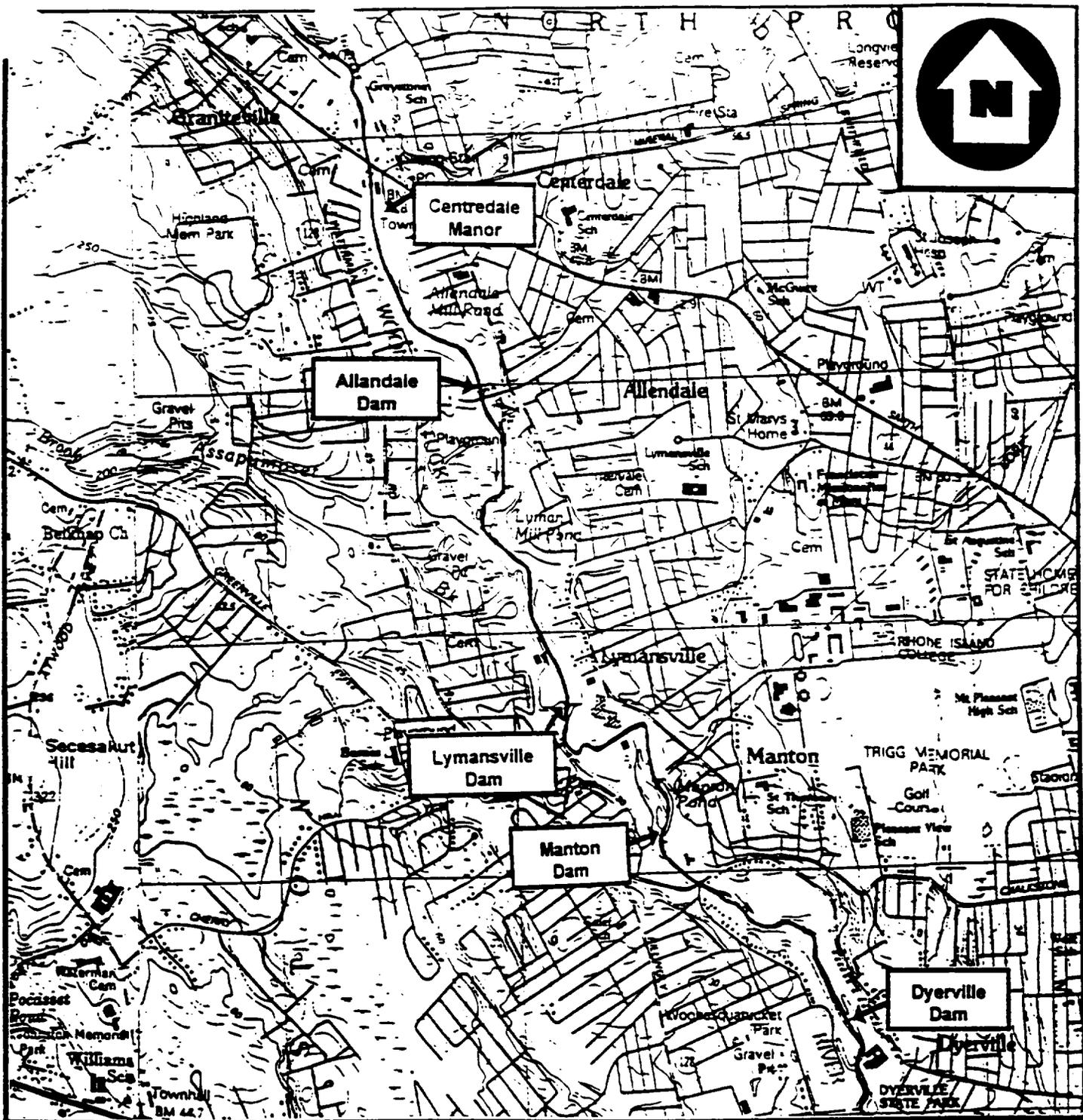
LOCATION MAP
 WOONASQUATUCKET RIVER (NORTH)
 CENTREDALE MANOR SITE
 2074 SMITH STREET
 NORTH PROVIDENCE, RHODE ISLAND



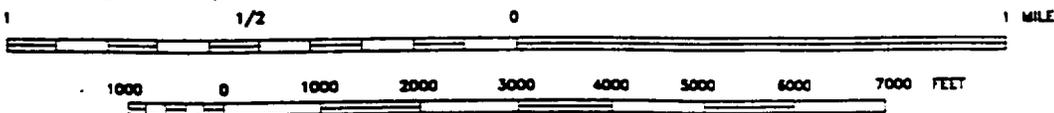
MANAGERS DESIGNERS/CONSULTANTS
 REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD # 98-06-0017	DRAWN BY: W. SHAW	DATE 8/17/98
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FILE NAME: S:\98060017\FIG1A	FIGURE 1A
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BASE MAP IS A PORTION OF THE FOLLOWING 7.5 X 15' MINUTE U.S.G.S. QUADRANGLE(S):
 PROVIDENCE, RI 1987; NORTH SCITUATE, RI 1955 (PHOTOREVISED 1970 AND 1975)



QUADRANGLE LOCATION

LOCATION MAP
 MOONASQUACKET RIVER (CENTRAL)
 CENTREDALE MANOR SITE
 2074 SMITH STREET
 NORTH PROVIDENCE, RHODE ISLAND



REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

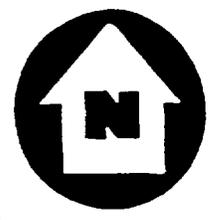
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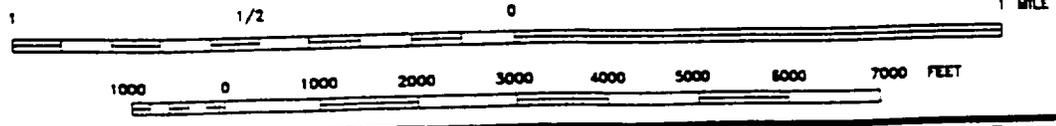
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FIGURE 1B



BASE MAP IS A PORTION OF THE FOLLOWING 7.5 X 15' MINUTE U.S.G.S. QUADRANGLE(S):
PROVIDENCE, RI 1987



QUADRANGLE LOCATION

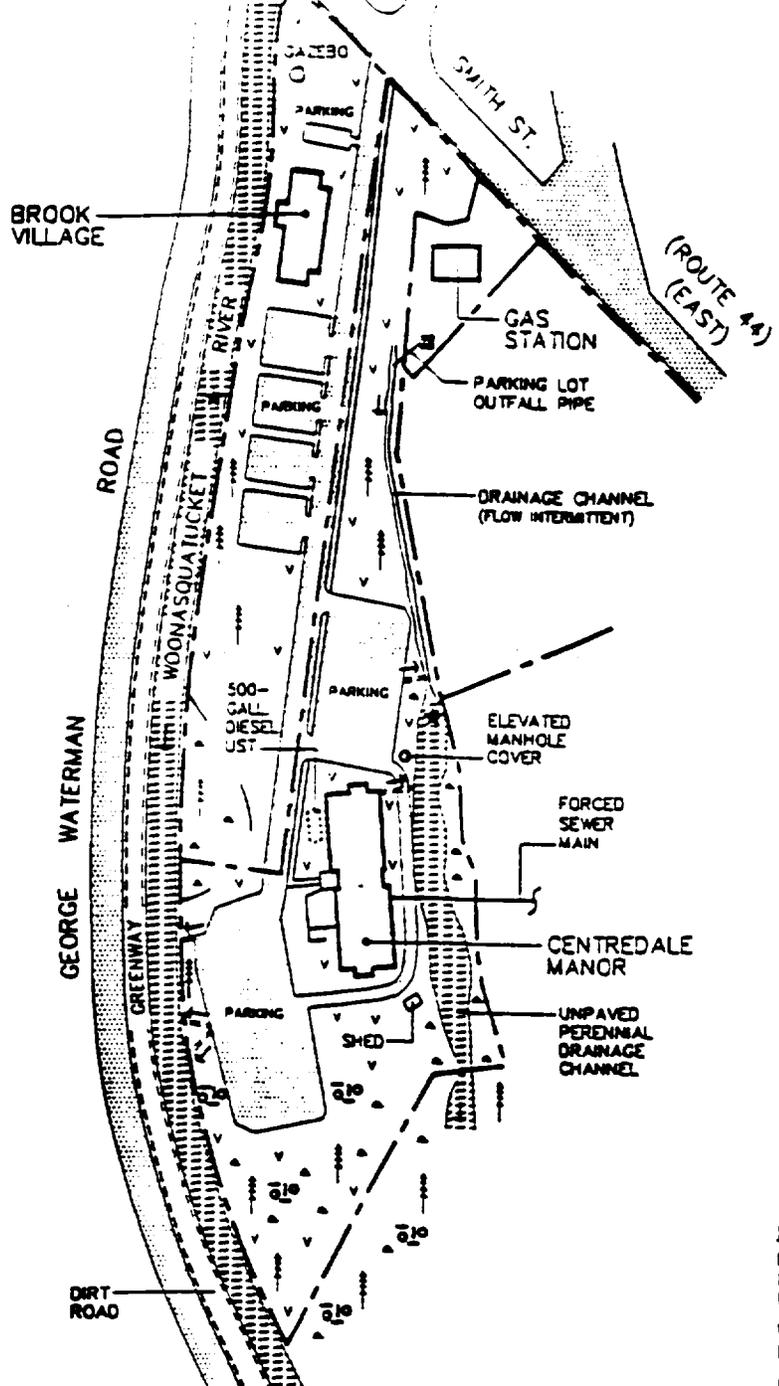
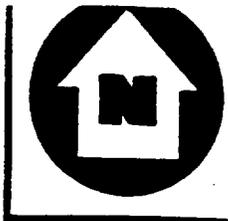
LOCATION MAP
WOONASQUATUCKET RIVER (SOUTH)
CENTREDALE MANOR SITE
2074 SMITH STREET
NORTH PROVIDENCE, RHODE ISLAND



MANAGERS DESIGNERS/CONSULTANTS
REGION 1 SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD # 98-06-0017 DRAWN BY: W. SHAW DATE 8/17/98

FILE NAME: S:\980600\7\FIG1C FIGURE 1C



SOURCES:
 NORTH PROVIDENCE TAX ASSESSORS
 PLAT MAP - PLAT NO. 14
 DECEMBER 1992, REVISED DECEMBER 1994
 WESTON/START FIELD BOOK NO. 00343-5
 FOR CENTREDALE MANOR - 1998
 NOT TO SCALE

LEGEND

- SURFACE WATER
- FLOW DIRECTION
- DRUM, DEBRIS, OR METAL FRAGMENTS
- GRASS
- PROPERTY LINE
- PAVED DRAINAGE SWALE
- PAVED AREAS
- WETLANDS
- UNDERGROUND STORAGE TANK (UST)
- WOODED AREA
- CATCHBASIN
- PROBABLE POINT OF ENTRY TO SURFACE WATER PATHWAY
- INTERMITTENT STREAM (DURING FLOOD PERIODS)

SITE SKETCH

CENTREDALE MANOR PROPERTY
 CENTREDALE MANOR SITE
 2074 SMITH STREET
 NORTH PROVIDENCE, RHODE ISLAND



REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

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FILE NAME: S:\98060017\FIG2	FIGURE 2
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An eight-story apartment building housing approximately 135 elderly and handicapped residents, known as Centredale Manor, which was constructed in February 1982, currently occupies the property. Two paved parking lots are located to the north and west of the building (Figure 2). The areas around the parking lots and the building are landscaped with a grass ground cover. A 500-gallon underground storage tank (UST) containing diesel fuel is located approximately 100 feet west of the building. The tank is leak tested biannually and has reportedly not failed integrity testing to date [1, p. 3].

The highest elevation on the property is approximately 200 feet above mean sea level and located in the central portion of the property. Topography on the property is relatively flat with a downward slope to the east, towards the drainage channel. During the ESI on-site reconnaissance, areas of stressed vegetation were observed on the northwest side of the property between the Centredale Manor and Brook Village parking lots and in the southern portion of the property along the overland flow route between on-site paved areas and the Woonasquatucket River [3].

The majority of residences and businesses in the vicinity of the property are served by the City of Providence public water supply system [8]. The nearest public drinking water supply well to the Centredale Manor property is located 0.8 miles to the west of the property at the Pied Piper Nursery School and serves an estimated 130 people. An estimated 1,351 people are served by public drinking water wells within 4-radial miles of the property. Approximately 8,130 people are served by private drinking water wells within 4-radial miles of the property. The nearest private drinking water well to the Centredale Manor property is the Yacht Club Bottling Works, Inc., located approximately 0.12 miles northeast of the property [1, pp. 3, 12].

The Centredale Manor Site is located in the Woonasquatucket Regional River Basin. An undefined overland flow route exists for precipitation that falls on the property. As a result, run-off from the property travels as sheet flow into either the Woonasquatucket River or the drainage channel. The most upstream probable points of entry (PPEs) from sheet flow are located adjacent to the Brook Village building (along the Woonasquatucket River) and in the drainage channel located east of the Centredale Manor building (Figure 2). From the drainage channel PPE, the surface water travels along the eastern perimeter of the property and converges with the Woonasquatucket River approximately 0.3 miles downstream of the property. The mean annual flow rate of the drainage channel is estimated to be 5 cubic feet per second (cfs). The drainage channel is not known to be a fishery [1, p. 14].

From the Woonasquatucket River PPE, surface water travels approximately 0.1 miles along the western perimeter of the property, reaches the confluence with the drainage channel 0.3 miles south of the property and travels south for approximately 5.7 miles before discharging into the Providence River. The Providence River continues south approximately 8 miles before discharging into the Narragansett Bay. The mean annual flow rate of the Woonasquatucket River in the vicinity of the property is estimated to be 73 cfs based on historical flow rate information from a gaging station located 0.1 miles north of the property. The Providence River and Narragansett Bay are tidally influenced [1, p. 14].

There are also two defined surface water overland flow routes on the property. A number of paved drainage swales exist to divert overland flow to either the drainage channel or to the Woonasquatucket River (Figure 2) [1, p. 16].