



## **The EDR-Radius Map with GeoCheck<sup>®</sup>**

**9 Ocean Front South  
9 Ocean Front South  
Salisbury Beach, MA 01952**

**Inquiry Number: 456611.1s**

**January 26, 2000**

## ***The Source* For Environmental Risk Management Data**

3530 Post Road  
Southport, Connecticut 06490

### **Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)

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***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

## Disclaimer and Other Information

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-97. Search distances are per ASTM standard or custom distances requested by the user.

The address of the subject property for which the search was intended is:

9 OCEAN FRONT SOUTH  
SALISBURY BEACH, MA 01952

No mapped sites were found in EDR's search of available ( "reasonably ascertainable ") government records either on the subject property or within the ASTM E 1527-97 search radius around the subject property for the following Databases:

<b>NPL:</b> .....	National Priority List
<b>Delisted NPL:</b> .....	NPL Deletions
<b>RCRIS-TSD:</b> .....	Resource Conservation and Recovery Information System
<b>CERCLIS:</b> .....	Comprehensive Environmental Response, Compensation, and Liability Information System
<b>CERC-NFRAP:</b> .....	Comprehensive Environmental Response, Compensation, and Liability Information System
<b>CORRACTS:</b> .....	Corrective Action Report
<b>SWF/LF:</b> .....	Solid Waste Facility Database/Transfer Stations
<b>LUST:</b> .....	Transition List
<b>UST:</b> .....	Summary Listing of all the Tanks Registered in the State of Massachusetts
<b>AST:</b> .....	Summary Listing of All the Tanks Registered in the State of Massachusetts
<b>RAATS:</b> .....	RCRA Administrative Action Tracking System
<b>RCRIS-SQG:</b> .....	Resource Conservation and Recovery Information System
<b>RCRIS-LQG:</b> .....	Resource Conservation and Recovery Information System
<b>HMIRS:</b> .....	Hazardous Materials Information Reporting System
<b>PADS:</b> .....	PCB Activity Database System
<b>ERNS:</b> .....	Emergency Response Notification System
<b>FINDS:</b> .....	Facility Index System/Facility Identification Initiative Program Summary Report
<b>TRIS:</b> .....	Toxic Chemical Release Inventory System
<b>NPL Lien:</b> .....	NPL Liens
<b>TSCA:</b> .....	Toxic Substances Control Act
<b>MLTS:</b> .....	Material Licensing Tracking System
<b>Release:</b> .....	Release Tracking Report
<b>MA Spills:</b> .....	Historical Spill List
<b>ROD:</b> .....	ROD
<b>CONSENT:</b> .....	Superfund (CERCLA) Consent Decrees
<b>Coal Gas:</b> .....	Former Manufactured gas (Coal Gas) Sites.
<b>MINES:</b> .....	Mines Master Index File

Unmapped (orphan) sites are not considered in the foregoing analysis.

### Search Results:

Search results for the subject property and the search radius, are listed below:

### Subject Property:

The subject property was not listed in any of the databases searched by EDR.

## EXECUTIVE SUMMARY

### Surrounding Properties:

Elevations have been determined from the USGS 1 degree Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. EDR's definition of a site with an elevation equal to the subject property includes a tolerance of -10 feet. Sites with an elevation equal to or higher than the subject property have been differentiated below from sites with an elevation lower than the subject property (by more than 10 feet). Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

**SHWS:** The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Protection's List of Confirmed Disposal Sites & Locations to be Investigated.

A review of the SHWS list, as provided by EDR, has revealed that there is 1 SHWS site within approximately 1 mile of the subject property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
MODERN CONTINENTAL CONST	266 BEACH RD	1/2 - 1 WSW 1		9

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

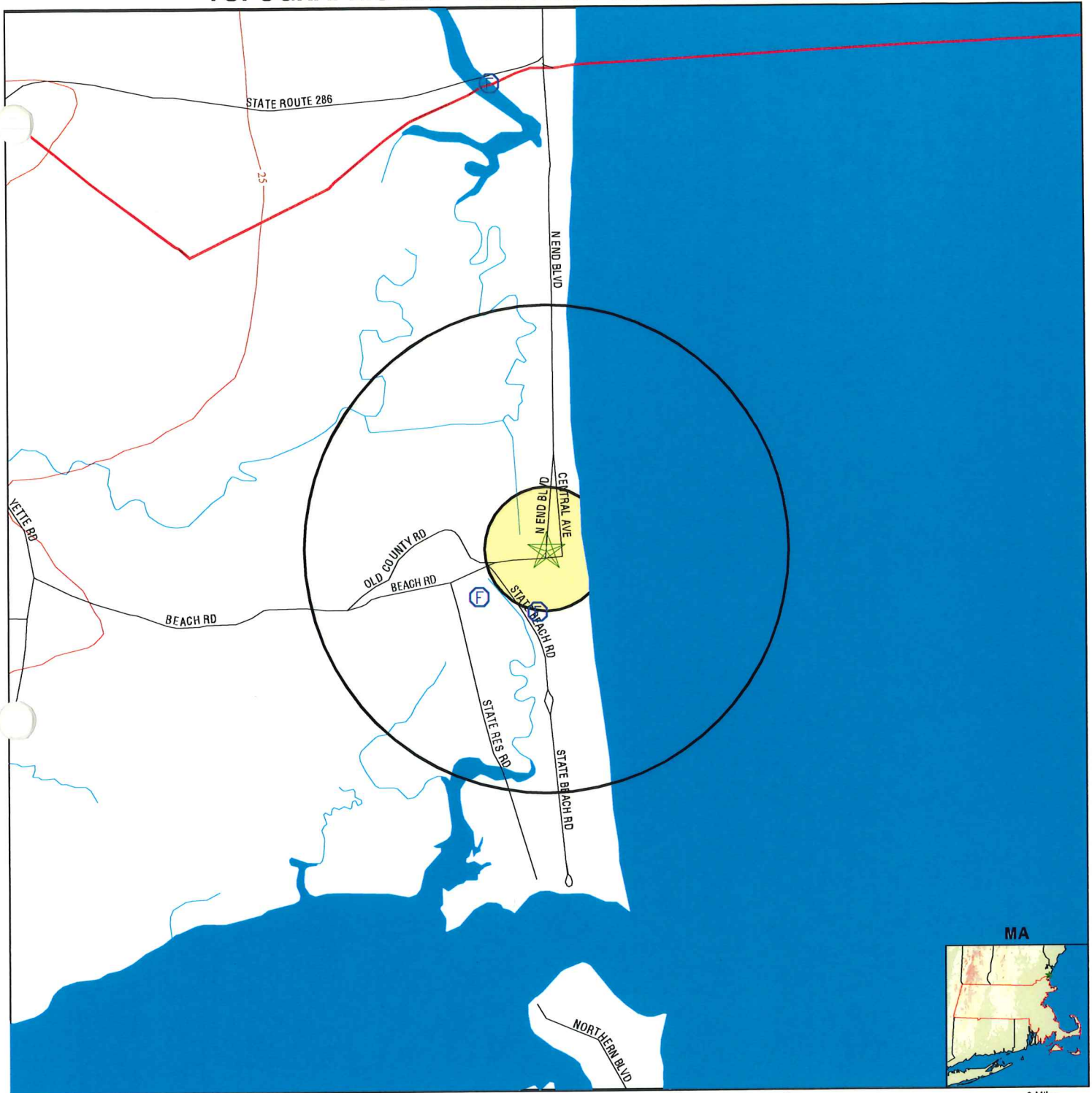
Site Name

SPEAR DRUM  
50 TO 100 FT SOUTH OF FLORENCE  
ADJ TO LOT 41 195 SOUTH

Database(s)

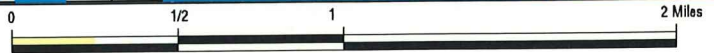
CERCLIS  
Release  
Release

# TOPOGRAPHIC MAP - 456611.1s - Nucci Vine Associates



- Major Roads
- Contour Lines
- Waterways
- Earthquake epicenter, Richter 5 or greater
- Closest Federal Well in quadrant
- Closest State Well in 1 mile radius
- Closest Public Water Supply Well

- EPA Designated Sole Source Aquifers
- Potentially Productive Aquifers
- Not Potentially Productive Aquifers
- DEP Approved Zone IIs



<p><b>TARGET PROPERTY:</b> 9 Ocean Front South  <b>ADDRESS:</b> 9 Ocean Front South  <b>CITY/STATE/ZIP:</b> Salisbury Beach MA 01952  <b>LAT/LONG:</b> 42.8434 / 70.8204</p>	<p><b>CUSTOMER:</b> Nucci Vine Associates  <b>CONTACT:</b> Mr. John Stitzer  <b>INQUIRY #:</b> 456611.1s  <b>DATE:</b> January 26, 2000 7:47 pm</p>
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# GEOCHECK VERSION 2.1 SUMMARY

## TARGET PROPERTY COORDINATES

Latitude (North): 42.843441 - 42° 50' 36.4"  
 Longitude (West): 70.820358 - 70° 49' 13.3"  
 Universal Transverse Mercator: Zone 19  
 UTM X (Meters): 351243.2  
 UTM Y (Meters): 4744821.5

## USGS TOPOGRAPHIC MAP ASSOCIATED WITH THIS SITE

Target Property: 2442070-G7 NEWBURYPORT EAST, MA NH

## GEOLOGIC AGE IDENTIFICATION†

Geologic Code: Pzg1  
 Era: Paleozoic  
 System: Ordovician  
 Series: Lower Paleozoic granitic rocks

## ROCK STRATIGRAPHIC UNIT†

Category: Plutonic and Intrusive Rocks

## GROUNDWATER FLOW INFORMATION

**Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, including well data collected on nearby properties, regional groundwater flow information (from deep aquifers), or surface topography.‡**

AQUIFLOW™ Search Radius: 2.000 Miles. The following table shows sites where groundwater flow and depth information was reported. Additional AQUIFLOW™ site information may be available in the GeoCheck® section at the end of this report.

<u>MAP ID</u>	<u>DISTANCE FROM TP</u>	<u>DIRECTION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported			

General Topographic Gradient at Target Property: General East  
 General Hydrogeologic Gradient at Target Property: No hydrogeologic data available.

## FEDERAL DATABASE WELL INFORMATION

<u>WELL QUADRANT</u>	<u>DISTANCE FROM TP</u>	<u>LITHOLOGY</u>	<u>DEPTH TO WATER TABLE</u>
Northern	1 - 2 Miles	Sand	Not Reported
Southern	1/4 - 1/2 Mile	Not Reported	7 ft.
Western	1/4 - 1/2 Mile	Not Reported	1 ft.

## STATE DATABASE WELL INFORMATION

### MASSACHUSETTS PUBLIC WATER SUPPLIES WITHIN 1 MILE OF THE TARGET PROPERTY

<u>DIRECTION FROM TP</u>	<u>DISTANCE FROM TP</u>
NO WELLS FOUND	

† Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).  
 ‡ U.S. EPA Ground Water Handbook, Vol 1: Ground Water and Contamination, Office of Research and development EPA/625/6-90/016a, Chapter 4, page 78, September 1990.  
 \*\* EDR AQUIFLOW™ information System of hydrogeologically determined groundwater flow directions at specific locations. See the data pages at the end of this report for a complete description.

# GEOCHECK VERSION 2.1 SUMMARY

ACEC ID            AREA NAME

Not Reported

**PUBLIC WATER SUPPLY SYSTEM INFORMATION**

Searched by Nearest PWS.

**NOTE:** PWS System location is not always the same as well location.

PWS Name:                BYFIELD WATER DISTRICT  
                                   35 LARKIN RD  
                                   BYFIELD, MA 019220000

Location Relative to TP:    >2 Miles West

PWS currently has or has had major violation(s) or enforcement:    Yes

**AREA RADON INFORMATION**

EPA Radon Zone for ESSEX County: 1

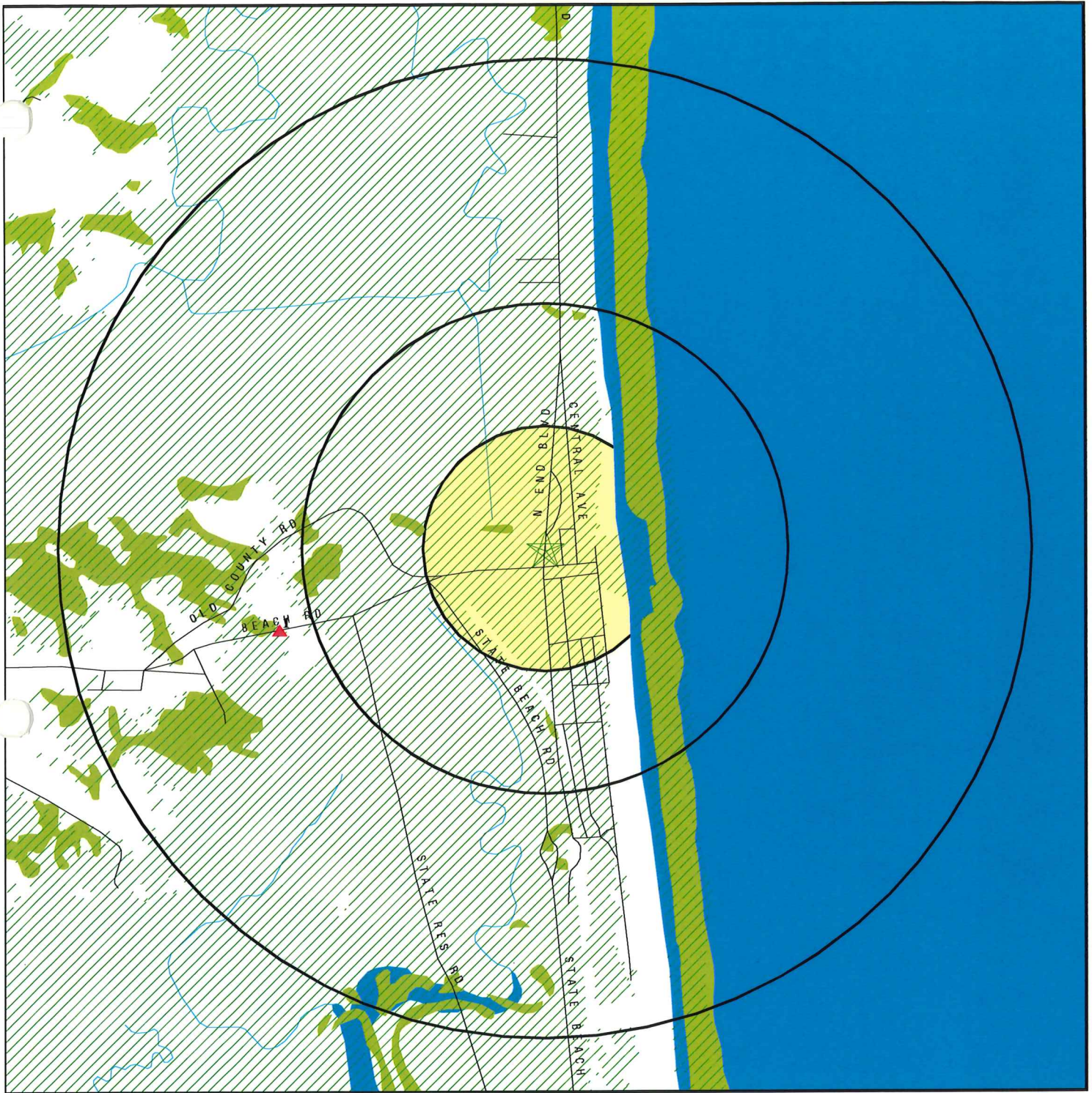
Note: Zone 1 indoor average level > 4 pCi/L.  
        : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.  
        : Zone 3 indoor average level < 2 pCi/L.

Zip Code: 01952

Number of sites tested: 3

<u>Area</u>	<u>Average Activity</u>	<u>% &lt;4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% &gt;20 pCi/L</u>
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	3.600 pCi/L	67%	33%	0%

# OVERVIEW MAP - 456611.1s - Nucci Vine Associates



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites (if requested)
- ☐ National Priority List Sites
- ☐ Landfill Sites

- ⚡ Power transmission lines
- ⚡ Oil & Gas pipelines
- ▨ 100-year flood zone
- ▨ 500-year flood zone
- Wetlands per National Wetlands Inventory (1994)

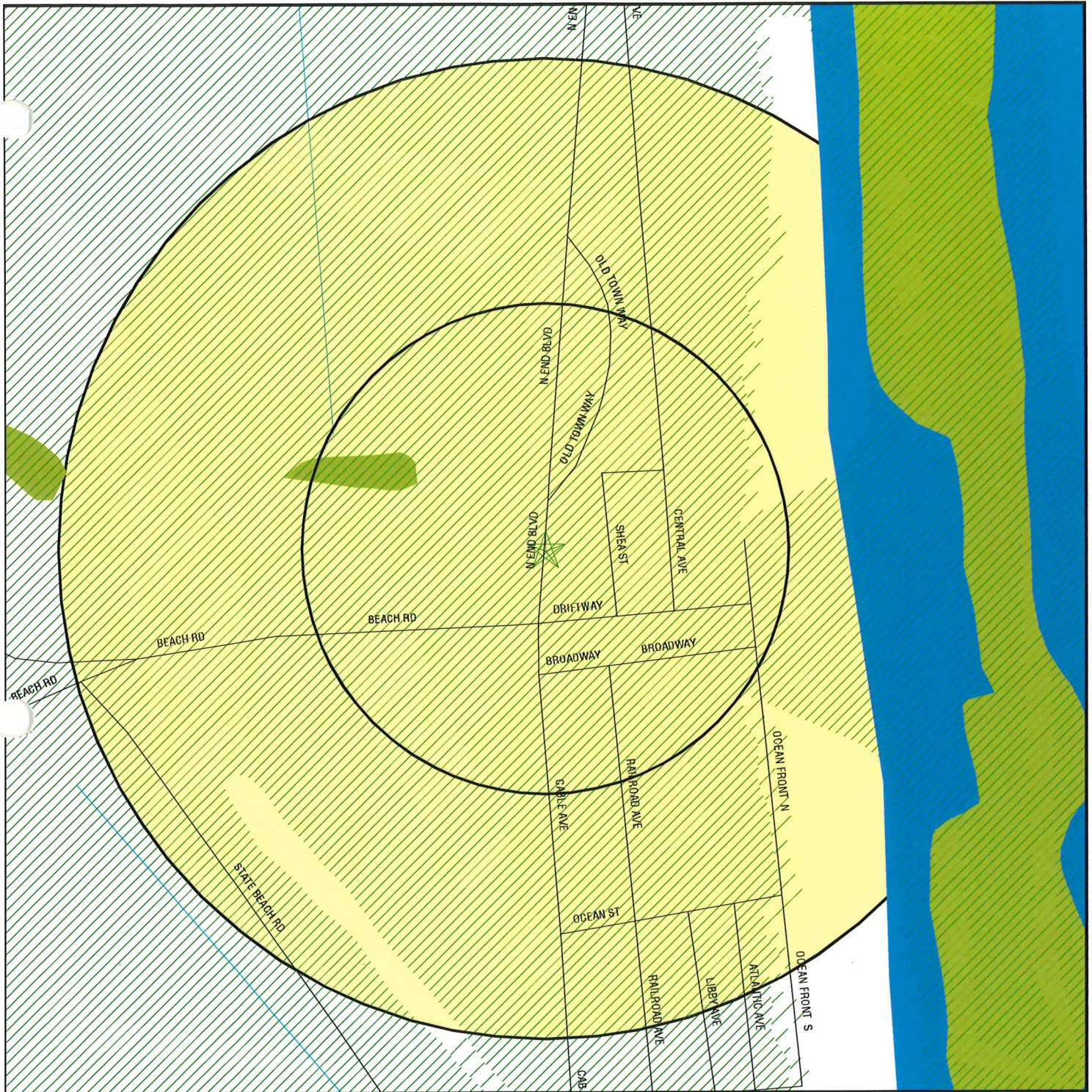
▨ Areas of Critical Environmental Concern



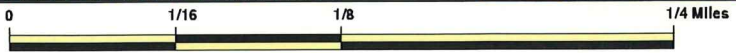
TARGET PROPERTY: 9 Ocean Front South  
 ADDRESS: 9 Ocean Front South  
 CITY/STATE/ZIP: Salisbury Beach MA 01952  
 LAT/LONG: 42.8434 / 70.8204

CUSTOMER: Nucci Vine Associates  
 CONTACT: Mr. John Stitzer  
 INQUIRY #: 456611.1s  
 DATE: January 26, 2000 7:44 pm

# DETAIL MAP - 456611.1s - Nucci Vine Associates



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites (if requested)
- ♣ Sensitive Receptors
- ☒ National Priority List Sites
- ☒ Landfill Sites
- ⚡ Power transmission lines
- 🛢️ Oil & Gas pipelines
- 🌊 100-year flood zone
- 🌊 500-year flood zone
- 🌿 Wetlands per National Wetlands Inventory (1994)
- 🌿 Areas of Critical Environmental Concern



<b>TARGET PROPERTY:</b> 9 Ocean Front South <b>ADDRESS:</b> 9 Ocean Front South <b>CITY/STATE/ZIP:</b> Salisbury Beach MA 01952 <b>LAT/LONG:</b> 42.8434 / 70.8204	<b>CUSTOMER:</b> Nucci Vine Associates <b>CONTACT:</b> Mr. John Stitzer <b>INQUIRY #:</b> 456611.1s <b>DATE:</b> January 26, 2000 7:46 pm
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## MAP FINDINGS SUMMARY SHOWING ALL SITES

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
RCRIS-TSD		0.500	0	0	0	NR	NR	0
State Haz. Waste		1.000	0	0	0	1	NR	1
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		0.250	0	0	NR	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
State Landfill		0.500	0	0	0	NR	NR	0
LUST		0.500	0	0	0	NR	NR	0
UST		0.250	0	0	NR	NR	NR	0
AST	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RCRIS Sm. Quan. Gen.		0.250	0	0	NR	NR	NR	0
RCRIS Lg. Quan. Gen.		0.250	0	0	NR	NR	NR	0
HMIRS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ERNS	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
NPL Liens	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
Release	TP		NR	NR	NR	NR	NR	0
MA Spills	TP		NR	NR	NR	NR	NR	0
ROD		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
Coal Gas		1.000	0	0	0	0	NR	0
MINES		0.250	0	0	NR	NR	NR	0

TP = Target Property

NR = Not Requested at this Search Distance

\* Sites may be listed in more than one database

**MAP FINDINGS SUMMARY SHOWING  
ONLY SITES HIGHER THAN OR THE SAME ELEVATION AS TP**

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
RCRIS-TSD		0.500	0	0	0	NR	NR	0
State Haz. Waste		1.000	0	0	0	1	NR	1
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		0.250	0	0	NR	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
State Landfill		0.500	0	0	0	NR	NR	0
LUST		0.500	0	0	0	NR	NR	0
UST		0.250	0	0	NR	NR	NR	0
AST	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RCRIS Sm. Quan. Gen.		0.250	0	0	NR	NR	NR	0
RCRIS Lg. Quan. Gen.		0.250	0	0	NR	NR	NR	0
HMIRS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ERNS	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
NPL Liens	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
Release	TP		NR	NR	NR	NR	NR	0
MA Spills	TP		NR	NR	NR	NR	NR	0
ROD		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
Coal Gas		1.000	0	0	0	0	NR	0
MINES		0.250	0	0	NR	NR	NR	0

TP = Target Property

NR = Not Requested at this Search Distance

\* Sites may be listed in more than one database

MAP FINDINGS

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

Database(s)    EDR ID Number  
EPA ID Number

**Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.**

1  
WSW  
1/2-1  
3014  
Higher

**MODERN CONTINENTAL CONST  
266 BEACH RD  
SALISBURY, MA 01950**

SHWS

S100041951  
N/A

SHWS:

Facility ID: 3-0002862  
Facility Status: RAO  
Site Product: PETROLEUM  
Initiating Agency: ERB  
Pub Involvement: Not reported  
REQ Type: Not reported  
Date Confirmed: Not reported  
Date Listed: Not reported  
ERB Number: N-89-0951  
Action Taken: Not reported

Current Status: P.A. L  
Site Status: L.T.B.I.  
Site Type: 21E  
Action Taken by: RP ONLY  
LTBI Listing Date: 01/15/1990  
REQ Due: Not reported  
Date Deleted: Not reported  
Region: Northeast  
EPA Number: Not reported

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)	Facility ID
SALISBURY	S104000499	50 TO 100 FT SOUTH OF FLORENCE	397 TO 403 NORTH END BLVD	01952	Release	3-0018406
SALISBURY	S102085513	ADJ TO LOT 41 195 SOUTH	LOCUST ST	01952	Release	3-0010941
SALISBURY	1001475549	SPEAR DRUM	LOCUST STREET	01952	CERCLIS	

# GEOCHECK VERSION 2.1 ADDENDUM FEDERAL DATABASE WELL INFORMATION

Well Closest to Target Property (Northern Quadrant)

## BASIC WELL DATA

Site ID:	425216070492901	Distance from TP:	1 - 2 Miles
Site Type:	Test hole, not completed as a well		
Year Constructed:	1946	County:	Not Reported
Altitude:	.00 ft.	State:	New Hampshire
Well Depth:	Not Reported	Topographic Setting:	Not Reported
Depth to Water Table:	Not Reported	Prim. Use of Site:	Test
Date Measured:	Not Reported	Prim. Use of Water:	Unused

## LITHOLOGIC DATA

Geologic Age ID (Era/System/Series):	Cenozoic-Quaternary-Holocene
Principal Lithology of Unit:	Sand
Further Description:	Sand, silty

## WATER LEVEL VARIABILITY

Not Reported

**GEOCHECK VERSION 2.1  
FEDERAL DATABASE WELL INFORMATION**

Well Closest to Target Property (Southern Quadrant)

**BASIC WELL DATA**

Site ID:	425023070491601	Distance from TP:	1/4 - 1/2 Mile
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	1970	County:	Essex
Altitude:	11.00 ft.	State:	Massachusetts
Well Depth:	23.00 ft.	Topographic Setting:	Not Reported
Depth to Water Table:	7.00 ft.	Prim. Use of Site:	Test
Date Measured:	09011970	Prim. Use of Water:	Unused

**LITHOLOGIC DATA**

Not Reported

**WATER LEVEL VARIABILITY**

Not Reported

**GEOCHECK VERSION 2.1  
FEDERAL DATABASE WELL INFORMATION**

Well Closest to Target Property (Western Quadrant)

**BASIC WELL DATA**

Site ID:	425026070493301	Distance from TP:	1/4 - 1/2 Mile
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	1970	County:	Essex
Altitude:	6.00 ft.	State:	Massachusetts
Well Depth:	22.00 ft.	Topographic Setting:	Not Reported
Depth to Water Table:	1.00 ft.	Prim. Use of Site:	Test
Date Measured:	10011970	Prim. Use of Water:	Unused

**LITHOLOGIC DATA**

Not Reported

**WATER LEVEL VARIABILITY**

Not Reported

# GEOCHECK VERSION 2.1

## PUBLIC WATER SUPPLY SYSTEM INFORMATION

Searched by Nearest PWS.

**PWS SUMMARY:**

PWS ID:	MA3205001	PWS Status:	Active	Distance from TP:	>2 Miles
Date Initiated:	March / 2090	Date Deactivated:	Not Reported	Dir relative to TP:	West
PWS Name:	BYFIELD WATER DISTRICT 35 LARKIN RD BYFIELD, MA 019220000				
Addressee / Facility:	Mailing BYFIELD WATER DISTRICT PO BOX 64 BYFIELD, MA 019220000				
Facility Latitude:	42 48 42	Facility Longitude:	070 52 30		
City Served:	Not Reported	Population Served:	2,501 - 3,300 Persons		
Treatment Class:	Treated				
PWS currently has or has had major violation(s) or enforcement:	Yes				

**VIOLATIONS INFORMATION:**

Violation ID:	9320002	Source ID:	Not Reported	PWS Phone:	6174623023
Vio. beginning Date:	01/01/93	Vio. end Date:	01/31/93	Vio. Period:	1 Month
Num of required Samples:	Not Reported	Number of Samples Taken:	Not Reported		
Analysis Result:	Not Reported	Maximum Contaminant Level:	Not Reported		
Analysis Method:	Not Reported				
Violation Type:	Monitoring, Routine Major (TCR)				
Contaminant:	COLIFORM (TCR)				
Vio. Awareness Date:	Not Reported				

**ENFORCEMENT INFORMATION:**

System Name:	BYFIELD WATER DISTRICT				
Violation Type:	Max Contaminant Level, Monthly (TCR)				
Contaminant:	COLIFORM (TCR)				
Compliance Period:	1995-09-01 - 1995-09-30	Analytical Value:	00000000.00		
Violation ID:	9600001V	Enforcement ID:	9600001		
Enforcement Date:	1995-10-10	Enf. Action:	State Public Notif Received		
System Name:	BYFIELD WATER DISTRICT				
Violation Type:	Max Contaminant Level, Monthly (TCR)				
Contaminant:	COLIFORM (TCR)				
Compliance Period:	1995-10-01 - 1995-10-31	Analytical Value:	00000000.00		
Violation ID:	9600002V	Enforcement ID:	9600002		
Enforcement Date:	1995-11-10	Enf. Action:	State Public Notif Received		
System Name:	BYFIELD WATER DISTRICT				
Violation Type:	Max Contaminant Level, Monthly (TCR)				
Contaminant:	COLIFORM (TCR)				
Compliance Period:	1995-10-01 - 1995-10-31	Analytical Value:	00000000.00		
Violation ID:	9600002V	Enforcement ID:	9600003		
Enforcement Date:	1996-04-25	Enf. Action:	State No Additional Formal Action Needed		

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Elapsed ASTM days:** Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

## FEDERAL ASTM RECORDS:

### **CERCLIS:** Comprehensive Environmental Response, Compensation, and Liability Information System

Source: EPA

Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 08/26/99

Date Made Active at EDR: 11/11/99

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 08/30/99

Elapsed ASTM days: 73

Date of Last EDR Contact: 11/29/99

### **ERNS:** Emergency Response Notification System

Source: EPA/NTIS

Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 10/28/99

Date Made Active at EDR: 12/03/99

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 11/01/99

Elapsed ASTM days: 32

Date of Last EDR Contact: 11/01/99

### **NPL:** National Priority List

Source: EPA

Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC).

Date of Government Version: 07/22/99

Date Made Active at EDR: 09/10/99

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 08/05/99

Elapsed ASTM days: 36

Date of Last EDR Contact: 11/08/99

### **RCRIS:** Resource Conservation and Recovery Information System

Source: EPA/NTIS

Telephone: 800-424-9346

Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 09/01/99

Date Made Active at EDR: 11/17/99

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 10/06/99

Elapsed ASTM days: 42

Date of Last EDR Contact: 01/03/00

### **CORRACTS:** Corrective Action Report

Source: EPA

Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/07/99

Date Made Active at EDR: 10/28/99

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 09/13/99

Elapsed ASTM days: 45

Date of Last EDR Contact: 12/13/99

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## FEDERAL NON-ASTM RECORDS:

### **BRS:** Biennial Reporting System

Source: EPA/NTIS

Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/95  
Database Release Frequency: Biennially

Date of Last EDR Contact: 12/20/99  
Date of Next Scheduled EDR Contact: 03/20/00

### **CONSENT:** Superfund (CERCLA) Consent Decrees

Source: EPA Regional Offices

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: Varies  
Database Release Frequency: Varies

Date of Last EDR Contact: Varies  
Date of Next Scheduled EDR Contact: N/A

### **FINDS:** Facility Index System/Facility Identification Initiative Program Summary Report

Source: EPA

Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/13/99  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 01/12/00  
Date of Next Scheduled EDR Contact: 04/10/00

### **HMIRS:** Hazardous Materials Information Reporting System

Source: U.S. Department of Transportation

Telephone: 202-366-4526

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/30/99  
Database Release Frequency: Annually

Date of Last EDR Contact: 10/28/99  
Date of Next Scheduled EDR Contact: 01/24/00

### **MLTS:** Material Licensing Tracking System

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/29/99  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 01/10/00  
Date of Next Scheduled EDR Contact: 04/10/00

### **NPL LIENS:** Federal Superfund Liens

Source: EPA

Telephone: 205-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 11/24/99  
Date of Next Scheduled EDR Contact: 02/21/00

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

**PADS: PCB Activity Database System**

Source: EPA

Telephone: 202-260-3936

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/22/97

Database Release Frequency: No Update Planned

Date of Last EDR Contact: 11/09/99

Date of Next Scheduled EDR Contact: 02/14/00

**RAATS: RCRA Administrative Action Tracking System**

Source: EPA

Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95

Database Release Frequency: No Update Planned

Date of Last EDR Contact: 12/13/99

Date of Next Scheduled EDR Contact: 03/13/00

**ROD: Records Of Decision**

Source: NTIS

Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/31/99

Database Release Frequency: Annually

Date of Last EDR Contact: 01/10/00

Date of Next Scheduled EDR Contact: 04/10/00

**TRIS: Toxic Chemical Release Inventory System**

Source: EPA

Telephone: 202-260-1531

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/97

Database Release Frequency: Annually

Date of Last EDR Contact: 12/27/99

Date of Next Scheduled EDR Contact: 03/27/00

**TSCA: Toxic Substances Control Act**

Source: EPA

Telephone: 202-260-1444

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/94

Database Release Frequency: Every 4 Years

Date of Last EDR Contact: 01/03/00

Date of Next Scheduled EDR Contact: 04/24/00

**MINES: Mines Master Index File**

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959

Date of Government Version: 08/01/98

Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 01/03/00

Date of Next Scheduled EDR Contact: 04/03/00

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## STATE OF MASSACHUSETTS ASTM RECORDS:

### LUST: Site Transition List

Source: Department of Environmental Protection  
Telephone: 617-292-5990

The Massachusetts List of Confirmed Disposal Sites and Locations To Be Investigated contains an inventory of Leaking Underground Storage Tanks. LUST records have been culled from the List of Confirmed Disposal Sites and Locations To Be Investigated and presented as a separate database.

Date of Government Version: 11/02/99  
Date Made Active at EDR: 11/30/99  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 11/18/99  
Elapsed ASTM days: 12  
Date of Last EDR Contact: 11/18/99

### SHWS: Site Transition List

Source: Department of Environmental Protection  
Telephone: 617-292-5990

Contains information about releases that occurred prior to October 1, 1993.

Date of Government Version: 11/02/99  
Date Made Active at EDR: 11/30/99  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 11/18/99  
Elapsed ASTM days: 12  
Date of Last EDR Contact: 11/18/99

### LF: Solid Waste Facility Database/Transfer Stations

Source: Department of Environmental Protection  
Telephone: 617-292-5989

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/01/99  
Date Made Active at EDR: 11/19/99  
Database Release Frequency: Monthly

Date of Data Arrival at EDR: 11/08/99  
Elapsed ASTM days: 11  
Date of Last EDR Contact: 11/08/99

### UST: Summary Listing of all the Tanks Registered in the State of Massachusetts

Source: Department of Fire Services, Office of the Public Safety  
Telephone: 978-567-3300

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 08/01/99  
Date Made Active at EDR: 10/22/99  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 09/08/99  
Elapsed ASTM days: 44  
Date of Last EDR Contact: 01/10/00

## STATE OF MASSACHUSETTS NON-ASTM RECORDS:

### AST: Summary Listing of All the Tanks Registered in the State of Massachusetts

Source: Department of Public Safety  
Telephone: 617-727-3200

Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/99  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 01/10/00  
Date of Next Scheduled EDR Contact: 02/14/00

### RELEASE: Reportable Releases

Source: Department of Environmental Protection  
Telephone: 617-292-5990

Contains information about notifications received after October 1, 1993.

Date of Government Version: 11/02/99  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/18/99  
Date of Next Scheduled EDR Contact: 02/14/00

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## MA SPILLS: Historical Spill List

Source: Department of Environmental Protection  
Telephone: 617-292-5720

The Spills Database was the release notification tracking system for spills that occurred prior to October 1, 1993. This information should be considered to be primarily of historical interest since all of the listed spills have either been cleaned up or assigned new tracking numbers and moved to the Reportable Releases or Sites Transition List databases.

Date of Government Version: 09/30/93  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 07/29/94  
Date of Next Scheduled EDR Contact: N/A

## Historical and Other Database(s)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

**Former Manufactured Gas (Coal Gas) Sites:** The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

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## DELISTED NPL: NPL Deletions

Source: EPA  
Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 06/24/99  
Date Made Active at EDR: 09/10/99  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 08/10/99  
Elapsed ASTM days: 31  
Date of Last EDR Contact: 11/08/99

## NFRAP: No Further Remedial Action Planned

Source: EPA  
Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 08/26/99  
Date Made Active at EDR: 11/11/99  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 08/30/99  
Elapsed ASTM days: 73  
Date of Last EDR Contact: 11/29/99

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

**PWS: Public Water Systems**

Source: EPA/Office of Drinking Water  
Telephone: 202-260-2805

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

**PWS ENF: Public Water Systems Violation and Enforcement Data**

Source: EPA/Office of Drinking Water  
Telephone: 202-260-2805

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SWDIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

**Area Radon Information:** The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

**EPA Radon Zones:** Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

**Oil/Gas Pipelines/Electrical Transmission Lines:** This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines and electrical transmission lines.

**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

**USGS Water Wells:** In November 1971 the United States Geological Survey (USGS) implemented a national water resource information tracking system. This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on more than 900,000 wells, springs, and other sources of groundwater.

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI: National Wetlands Inventory.** This data, available in select counties across the country, was obtained by EDR in March 1997 from the U.S. Fish and Wildlife Service.

**Epicenters:** World earthquake epicenters, Richter 5 or greater  
Source: Department of Commerce, National Oceanic and Atmospheric Administration

**Water Dams:** National Inventory of Dams  
Source: Federal Emergency Management Agency  
Telephone: 202-646-2801  
National computer database of more than 74,000 dams maintained by the Federal Emergency Management Agency.

**Massachusetts Geographic Information System (MassGIS) Datalayers**

Source: Executive Office of Environmental Affairs

**Community Public Water Supplies Datalayer:** Data was compiled by the DEP Division of Water Supply and contains 1435 public community water supplies as defined in 310 CMR 22.00. Both groundwater and surface water supplies are included. As stated in 310 CMR 22.00, a Community Water Supply is part of a community water system "which serves at least fifteen (15) service connections used by year-round residents".

**Areas of Critical Environmental Concern Datalayer:** The Areas of Critical Environmental Concern (ACEC) datalayer shows the location of areas that have been designated ACECs by the Secretary of Environmental Affairs. ACEC designation requires greater environmental review of certain kinds of proposed development under state jurisdiction within the ACEC boundaries. The ACEC Program is administered by the Department of Environmental Management (DEM) on behalf of the Secretary of Environmental Affairs. The Massachusetts Coastal Zone Management (MCZM) Office managed the original Coastal ACEC Program from 1978 to 1993, and continues to play a key role in monitoring coastal ACECs. Procedures for ACEC designation and the general policies governing the effects of designation are contained in the ACEC regulations (301 CMR 12.00). The ACEC datalayer has been compiled by MCZM and DEM and includes both coastal and inland areas.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

**EPA Designated Sole Source Aquifers Datalayer:** The Sole Source Aquifer datalayer was compiled by the Department of Environmental Protection (DEP) Division of Water Supply (DWS). Seven Sole Source Aquifers have been designated by the US Environmental Protection Agency (EPA) for Massachusetts. A Sole Source Aquifer (SSA) is an aquifer designated by US EPA as the sole or principal source of drinking water for a given aquifer service area; that is, an aquifer which is needed to supply 50% or more of the drinking water for that area and for which there are no reasonably available alternative sources should that aquifer become contaminated. The aquifers were defined by a EPA hydrogeologist.

**Aquifers Datalayer:** MassGIS produced an aquifer datalayer composed of 20 individual panels, generally based on the boundaries of the major drainage basins. Areas of high and medium yield were mapped. This datalayer includes polygon attribute coding to help in the identification of areas in which cleanup of hazardous waste sites must meet drinking water standards, as defined in the Massachusetts Contingency Plan (MCP) (310 CMR 40.00000).

**DEP Approved Zone IIs Datalayer:** The Department of Environmental Protection (DEP) approved Zone IIs datalayer was compiled by the DEP Division of Water Supply (DWS). The database contains 281 approved Zone IIs statewide. As stated in 310 CMR 22.02, a Zone II is "that area of an aquifer which contributes water to a well under the most severe pumping and recharge conditions that can be realistically anticipated (180 days of pumping at safe yield, with no recharge from precipitation.) It is bounded by the groundwater divides which result from pumping the well and by the contact of the aquifer with less permeable materials such as till or bedrock. In some cases, streams or lakes may act as recharge boundaries. In all cases, Zone IIs shall extend up gradient to its point of intersection with prevailing hydrogeologic boundaries (a groundwater flow divide, a contact with till or bedrock, or a recharge boundary)." These data are used in association with the Public Water Supplies datalayer. The following describes certain unique features of this association.

- Any proposed new well which will pump at least 100,000 gallons per day must have a Zone II delineation completed and approved by DEP prior to the well coming on line.
- Additionally, a new source may not be on-line yet, but other, older wells may fall within its Zone II boundary.
- Further, existing wells must have a Zone II delineated as a condition of receiving a water withdrawal permit under the Water Management Act.

## **AQUIFLOW™ Information System**

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

**EXHIBIT A  
PROJECT NARRATIVE**

**A. INTRODUCTION**

The proposed project includes the demolition of the building referred to as Building No. 3 at 9 Ocean Front South. The proponent for the project is the Department of Environmental Management (DEM). The project is the initial phase of the intended demolition and State property acquisition of the four (4) buildings along Ocean Front South, which total approximately 1,100 linear feet.

**B. EXISTING SITE CONDITIONS**

The project site is located along Salisbury Beach, just south of the Broadway and South Ocean Front intersection (see Figure 1 and Figure 4). The site is located on a barrier beach (island) with mixed residential and commercial uses. The southern end of the island contains the DEM Salisbury Beach State Reservation, a camping and public beach facility. The DEM Reservation owns and maintains much of the beach area extending north to the New Hampshire State line.

The entire beach, including the backshore, is mapped as a "Velocity zone" (V2) (See Figure 4). Most of the project locus is mapped as V2 (elevation 15 ft NGVD), except for the extreme southern end at Ocean Street, which is mapped as V2 (elevation 16 ft). Velocity zones are defined as "Areas of 100 year coastal flood with wave action, base elevations, and flood hazard factors are not determined." Landward of the site is designated as an "Area of 100 year shallow flooding" (A0) and Zone C, "Areas of minimal flooding". Flood depth in this area is estimated to be approximately 1 to 3 feet.

The Commonwealth of Massachusetts Coastal Zone Management (CZM) indicates that the beach area within the project locus is an eroding beach, having lost approximately 24 feet of shoreline between 1928 and 1978. Sheet 1 of 1 proposed work plan indicates the existing and prior shoreline of 1933, indicating a retreat of 28 feet since 1933.

Elevations presented by Sheet 1 of 1 are presented based on the mean low water (MLW) datum, with MLW elevation 0.0 approximately 3.1 feet below the NGVD datum. The mean tidal range of the area is 7.8 feet. The high tide line (HTL) extends to 10.2 feet above MLW. The December 1997 DEM Report of Findings, prepared by Normandeau Associates, Inc. (NAI) indicate estimated mean beach slopes to be ~7,6% in the littoral

zone (intertidal), ~19.8% along the face of the berm, and ~10% in the supra-littoral zone (backshore).

Soil samples recovered by NAI indicate the beach soils to be coarse to fine sands, with little to trace of silt and gravel materials. Coarser grain size was encountered within mid-tide samples (samples 002 and 005). Appendix D provides grain size testing of area samples.

Building No. 3 measures approximately 350 long by 150 feet wide. Building No. 3 is a predominately vacant building shell set on 772 timber piles with a mean diameter of 8 in (maximum 11 inch, minimum 5.5 inch). These piles consist of tree trunks, which may date back to the 1910's, and are believed to extend only a few feet into the beach. Some of these foundation piles have been undermined or have deteriorated to a point where they no longer extend into the sand. The majority of piles have been reinforced over time (e.g. shimmed, braced, cross-braced, or posted). Most if not all piles are in poor condition. Several overhangs/additions exist around the irregularly shaped building perimeter. An opening exists within a portion of the building's southern end. This opening could have been by design, or may be indicative of a collapsed portion of the structure. A second story exists over part of the building's central portion. At the structure's northern there is a newer, one story, wood frame structure (approximately 30 by 50 feet) which is supported on a concrete foundation. This foundation appears to be in good condition. Immediately south of the new portion of the building stands a 4 to 5 story tower that appears to be in poor condition.

Building No. 3 is abutted to the north by Building No. 2, which is also pile supported and in an advanced degree of deterioration. To the south is Building No. 4, which is a narrower, on grade structure which extends approximately 300 feet so the south. There are unpaved passageways between the 3 buildings, which are used for beach access.

To the south of Building No. 4 is a public parking area, which directly fronts the beach. Directly adjacent to the parking area is a dune, which was constructed by the Town in 1994, due to severe erosion experienced by 1992 storms. The dunes contain snow fences on the water and land side, and have several lower areas that are used for public access. NVA topographic survey indicated the top of the dune to be about elevation 22 to 23, the crest to be about 15 feet wide, with the water side slope at about 5H:1V and the land side slope at about 1H:1V, sloping past guard rails. The dune is vegetated and seems to be quite stable.

Review of Town provided information regarding this dune indicated the original design to have the crest of the dune to elevation 19.1 (16.0 NGVD datum), with the crest 10 feet wide, and the waterside slope at 5H: 1V. The sand was brought to the site from an upland source, as specified by the contract (see Addendum D). It is assumed that the dune at this location has become quite stable, as observed by the established vegetation and the buildup of sand adjacent to the snow fences.

## C. PROPOSED WORK

The proposed work consists of the demolition of the majority of Building No. 3, with the exception being the 30 foot by 50 foot section to the north. This section will remain in place, with external sheathing and finishing applied to the southern wall. Minor repairs to the roof are anticipated. The demolition of the main building will include all timber and concrete members with the exception of the landward-most concrete footing wall, which will remain in place, at grade, adjacent to the street. (See Section A-A, Sheet 1 of 1). The timber piles will be totally removed, as practical, with the specifications requiring the contractor to pull the piles, with any broken off pile being excavated and removed to a minimum depth of 5 feet below existing grade.

Following removal of the building, the beach will be stabilized by placement of sand, to similar limits, as the existing dune to the south. Offsite material will be similar to existing sand material, with the criteria as was specified by the 1994 dune stabilization contract. The footprint of the dune is shown by Sheet 1 of 1. The dune will cover an area of approximately 17,000 SF, requiring an estimated 1,200 CY of material. Actual quantity will be dependent on beach grade following building removal. All filling will be above the high tide level.

Snow fencing will be placed directly landward and seaward of the dune crest. The snow fencing will be continuous with the exception of two 10 foot wide breaks which will provide public access to the beach. Snow fencing shall be placed between breaks to discourage foot traffic over the dune and signage will be provided regarding the need to allow vegetation to be established for maintaining stability of the dune for minimizing flooding impacts.

The dune will be further stabilized utilizing American Beach Grass plantings between February and March to assure best success rates. Plants should be 1-2 culms, placed 18 inches apart, in staggered rows, eight inches deep in the ground. Fertilization should be with low amounts of 10-10-10 time-release nitrogen fertilizer, applied in May at a rate of 15-20 pounds per acre.

The construction shall be performed utilizing best construction practices to avoid impact to the coastal beach and the buffer zone resource areas. Construction fencing shall be placed around construction areas to avoid injury to the public, and to maintain construction debris from entering the water. The Contractor shall be required to maintain these fences and the construction site on a daily basis throughout the duration of construction.

## **D. WETLANDS PROTECTION ACT RESOURCE AREA MITIGATION**

The following paragraphs will provide further definition of the wetland resource areas, potential impacts, and proposed mitigation measures:

### **1. COASTAL BEACH (310 CMR 10.27)**

A coastal beach is defined as an area of "unconsolidated sediment subject to wave, tidal and coastal storm action that forms the gently sloping shore of a body of salt water and includes tidal flats". This area will be temporarily altered by the placement of the sand during the beach stabilization operations. This area may be significant for the protection of wildlife habitat, as a source for littoral sediments, for the prevention of storm damage and for flood control.

Proposed work within this resource area will include the demolition/removal of the existing building and the placement of beach sand for beach stabilization. Due to the presence of the existing pile supported building over this area, and the use of the adjacent beach for recreational uses, this area does not provide significant wildlife habitat. The removal of the building and support piles will actually add a significant amount of undisturbed beach area. In fact, the placement of the beach sand and stabilization measures will improve the beach's ability to provide littoral sediments, prevent storm damage and control flooding.

Mitigation Measures to minimize adverse impacts to this resource area include the following:

- Construction fencing will be placed and maintained around the work area to protect the public, prevent the migration of construction debris and protect the beach nourishment area from foot traffic during the establishment of the beach grass.
- Demolition work will be coordinated to avoid periods of storms. The contractor will not leave equipment, materials, debris, or any other item within the work area that will be affected by rising water. Work areas will be left in a condition so that the rising water will not cause any damage to on going work and adjacent existing areas.
- Demolition materials will be removed and properly disposed of by the contractor. Upon finishing work, contractor will restore the adjacent areas to pre-work conditions.
- Only suitable material will be used for backfilling and loaming as approved by the Engineer.

- Contractor shall remove construction debris from sand following building removal.

## **2. LAND SUBJECT TO COASTAL STORM FLOWAGE**

Land Subject to Coastal Storm Flowage (LSCSF) is defined as "land subject to any inundation caused by coastal storms up to and including that caused by the 100-year storm, surge of record or storm of record, whichever is greater". This resource area is significant to storm damage prevention and flood control. The entire project site is within LSCSF. The 100-year flood zone designation at the site is a V-Zone with elevation 16.0 feet NGVD which equals 19.1 feet Mean Low Water.

The proposed beach stabilization work has been designed to maintain the existing storm damage prevention levels. The proposed beach cross section was developed based on adjacent beach fill projects. The beach fill will provide a buffer to coastal storm flooding and reduce wave overtopping. The proposed building demolition with the beach stabilization work will not impact the land's ability to buffer storm waves and to convey floodwaters.

Mitigation Measures to minimize adverse impacts to this resource area include the following:

- Demolition work will be coordinated to avoid periods of storms. The contractor will secure or remove any equipment, materials, debris, or any other item within the work area that could during a storm event cause damage to other structures and resource areas.

## **3. COASTAL BANK (310 CMR 10.30)**

The definition of a coastal bank by the Wetlands Protection Act means "the seaward face or side of any elevated landform, other than a coastal dune, which lies at the landward edge of a coastal beach, land subject to tidal action, or other wetland." The coastal bank at the project site is the seawall/foundation wall that is located at the landward edge of the Building No. 3. This coastal bank is significant for storm damage prevention and flood control because of its ability to dissipate storm wave energy and contain flooding. The manmade bank is not a source for littoral sediments.

The proposed work in this resource area will involve the removal of the building and any wall repairs necessitated by the demolition work. The demolition work

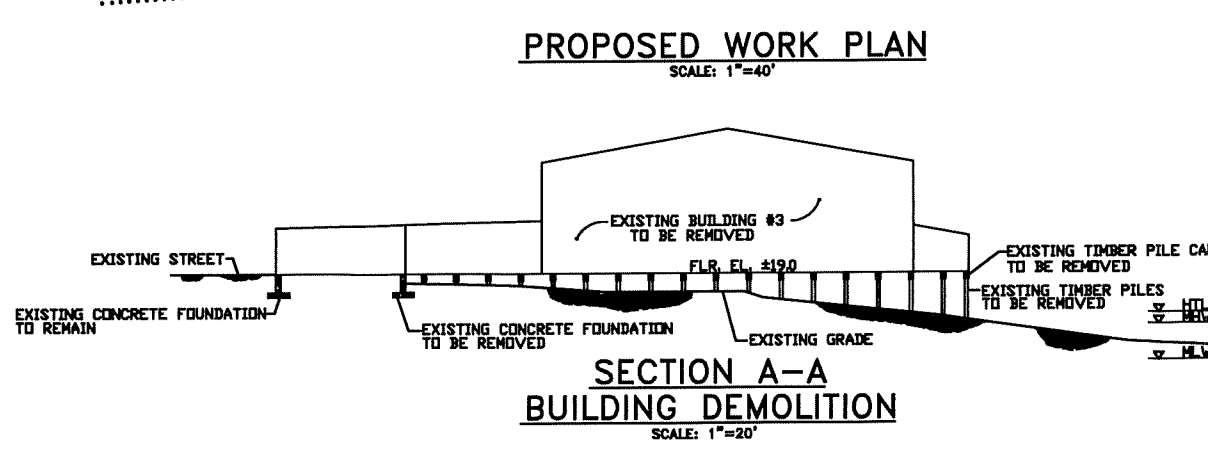
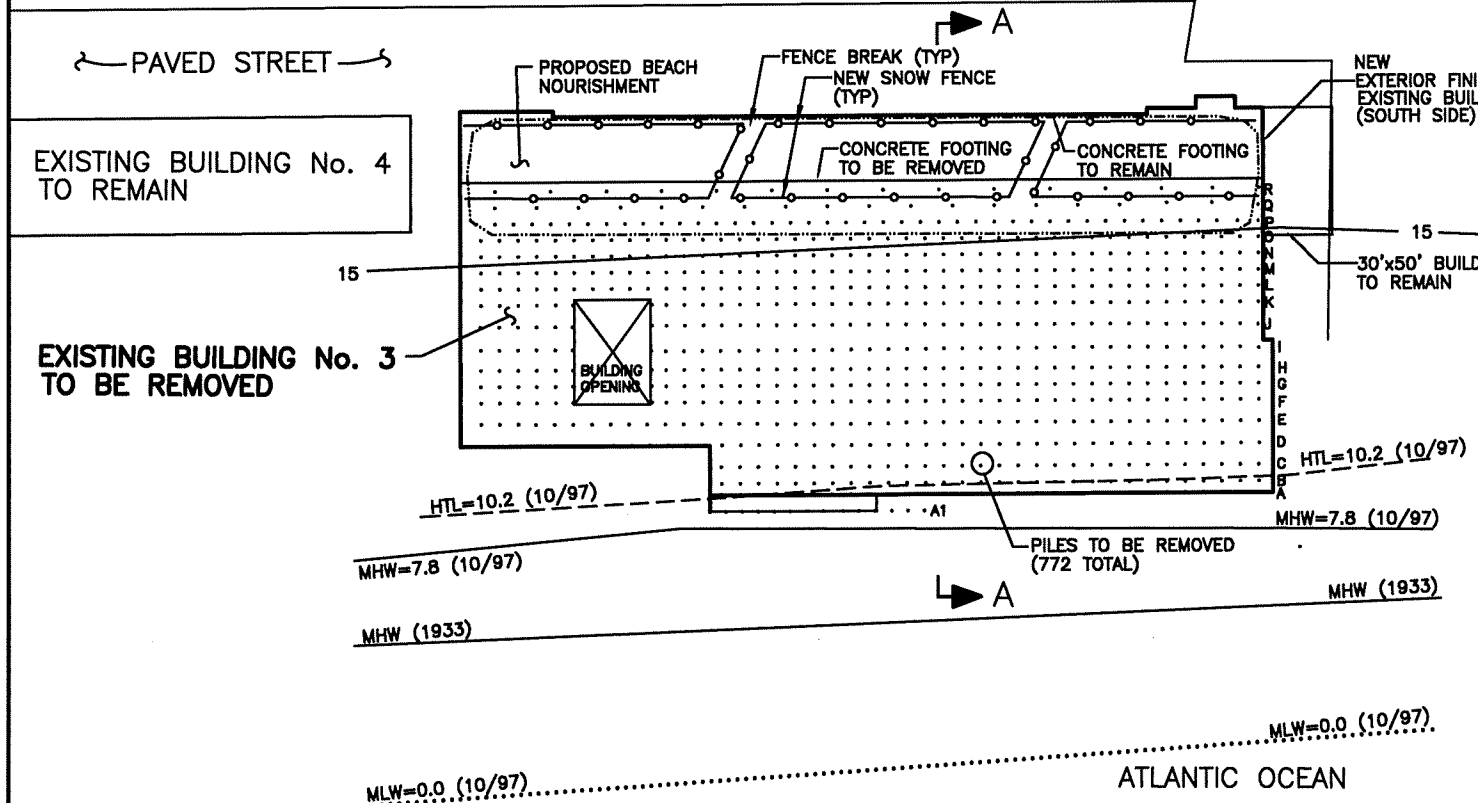
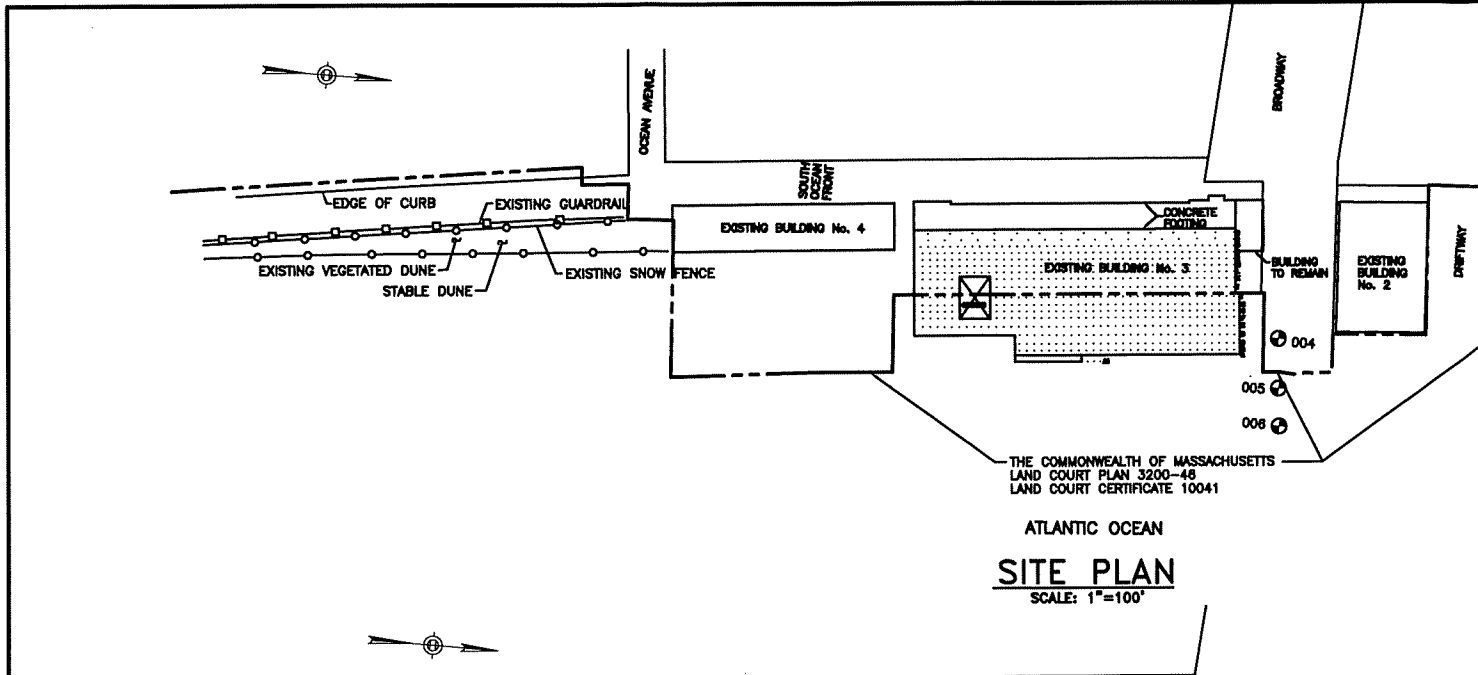
will not impact the stability of the bank. The placement of the beach nourishment will enhance the bank's ability to dissipate storm wave energy

#### **4. 100 FOOT BUFFER ZONE**

The Buffer Zone is defined as that area of land extending 100 feet horizontally outward from the boundary of any resource area defined by the Wetlands Protection Act. The proposed work will require the trucking of construction debris and sand through the buffer zone. The proposed work in the buffer zone will be controlled so that it will not impact the adjacent resource areas and existing site improvements.

Mitigation Measures to minimize adverse impacts will include the following:

- The placement of tarps or covers over the trucks during transport to prevent accumulation of sand or debris in roadways and drainage systems.
- Any areas disturbed by the contractors operations will be stabilized and returned to pre-work conditions.
- Erosion control measures will be placed around any stockpiles of loose material.
- Contractor shall remove construction debris from sand following building removal.



8/1/2014

