

## GENERAL SITE INFORMATION, CHARACTERISTICS, AND STATUS

---

<b>Project Name</b>	<b><u>WOONASQUATUCKET RIVER</u></b>	<b>ProjectID:</b> 01-10
<b>Last Updated:</b>	04/06/01	
<b>City:</b>	Providence	
<b>County:</b>	Providence	
<b>State:</b>	RI	
<b>Country:</b>	USA	
<b>Bodies of Water:</b>	Woonasquatucket River; Allendale Pond	
<b>US EPA Region:</b>	I	
<b>Status (Active, Complete, or Monitoring Only):</b>	Active	
<b>Date On NPL:</b>	2000	
<b>ROD/ESD Date:</b>		
<b>Operable Unit:</b>	N/A	
<b>Areas of Concern (length or acres):</b>	At least a 7-mile stretch of river from Esmond Park in Smithfield (north) to Waterplace Park in Providence (south).	
<b>Other Characteristics of Water Body:</b>	Not identified	
<b>Contaminants of Concern:</b>	dioxin, mercury, PCBs	
<b>Source of Contamination:</b>	Assumed to be the result, in part, of a fire that took place in 1971 on the Centredale Manor Site, located a few hundred yards upstream (north) of Allendale Pond and one-half mile upstream of Allendale Dam, destroying the chemical and drum reclamation facilities located on the property. Buried drums also exist at the site and are assumed to be another potential source. Agency search for more sources is continuing.	
<b>Contaminated Area</b>	Not identified	
<b>Physical Characteristics:</b>		
<b>Type of Regulatory Action:</b>	US EPA Region I investigatory lead	
<b>Overall Status Summary:</b>	<p>In July 1998, as a result of new sediment sampling results showing elevated dioxin levels in Woonasquatucket River sediment, the U.S. EPA and the R.I. Department of Health reminded the public to be aware of the "catch and release" advisory in place for fish caught in the river. The fish advisory was first imposed in October 1996 after EPA studies found dioxin, mercury, and PCBs in eels and sunfish from the Woonasquatucket. The 1998 sediment sampling results exhibited dioxin levels ranging from 0.094-8.2 ppb, with the highest level behind the Lymansville Dam in North Providence and the second highest (7.4 ppb) behind the Allendale Dam.</p> <p>A second round of 45 soil and sediment samples obtained by EPA on and around the Centredale Manor property in September 1998 exhibited dioxin concentrations which exceeded EPA's action level of 1 ppb at three locations, namely a drainage ditch inaccessible to the public, the riverbank next to the Lee Romano ballfield, and the riverbank immediately upstream of the Allendale Dam. The 14 samples from these three locations exhibited dioxin concentrations ranging from 1.5 to 14.8 ppb.</p> <p>In response to these data, EPA announced in January 1999 plans for two dozen inspections at various types of manufacturing facilities in the Woonasquatucket River watershed, which includes Smithfield, Johnston, North Providence, North Smithfield, and Providence. The inspections will focus on underground storage tank/wastewater discharges, hazardous waste storage and handling, and other environmental compliance issues. Thirty-nine enforcement</p>	

## GENERAL SITE INFORMATION, CHARACTERISTICS, AND STATUS

---

**Project Name**

**WOONASQUATUCKET RIVER**

**ProjectID:** 01-10

**Last Updated:**

04/06/01

---

inspections had been done last spring at facilities along the Woonasquatucket, many of them metal plating shops and jewelry makers. Inspections in the watershed have resulted in one enforcement action to date - an administrative complaint earlier this month against Microfin Corp. in Providence, proposing a \$1.15 million civil penalty. EPA indicates more actions are expected.

One additional surface soil sampling program was performed at the Centredale Manor Site in February 1999. Samples were collected from three areas of the site, (1) the north end where the chemical and drum reclamation facilities were once located, (2) the southern end which is a wooded wetland area that acts as a drainage area for the north end of the property and eventually drains to the Woonasquatucket River, and (3) the western river bank of the Woonasquatucket. In addition, two upstream samples and 10 judgmental samples (from eight residential properties) were collected. Results of the sampling program indicate that 102 of the 248 samples (includes 23 duplicate samples) collected have dioxin levels exceeding the USEPA action level of 1 ppb. The highest level measured was 117 ppb (collected from the woods behind Centredale Manor) with a majority of the results in the 1 to 20 ppb range. Twenty nine samples (includes 4 duplicate samples) were collected from along the western bank of the Woonasquatucket. Seven of the samples (includes one duplicate sample) exceeded the USEPA action level of 1 ppb, with the maximum dioxin level being 2.48 ppb. A subsurface sampling program designed based on the surface soil sampling results was performed at the site during Summer 1999 (data not yet obtained).

To date, the US EPA has spent \$1.4 million to perform time-critical removal actions and collect soil and sediment samples. Portions of the site that were capped include the riverbank south of the Centerdale Manor parking lot and an area along the river between the manor and an existing apartment complex. Samples of river sediment and shoreline soil samples of the pond to Allendale Dam were collected throughout 1999 with analytical results due in March 2000. Preliminary work has begun on a site EE/CA. The site was placed on the NPL list in early 2000.

An Interim Remedial Action (NTCRA) is planned, per an Action Memorandum dated January 18, 2001. It calls for the removal of contaminated soil and sediment in floodplains containing dioxin concentrations greater than 1 ppb from properties subject to residential and recreational use at the Centredale Manor site. It also outlines plans for the restoration of the Allendale Dam. EPA is currently conducting a remedial investigation and feasibility study to evaluate the full nature and extent of contamination at the site.

**Remedial Action Planned:** ☒

**Risk Assessment:** ☐

**Remedial Action Implemented:** ☐

**Status of Dredging** ☐

**PRPs:** ☐

**Contacts:** ☒

**References:** ☒

**Modeling:** ☐

**Fishing Advisory:** ☒

## ***GENERAL SITE INFORMATION, CHARACTERISTICS, AND STATUS***

---

<b><i>Project Name</i></b>	<b><u>WOONASQUATUCKET RIVER</u></b>	<b><i>ProjectID:</i></b> 01-10
<b><i>Last Updated:</i></b>	04/06/01	
<b><i>Key Conditions:</i></b>	extended (>1 mile) river, floodplains targeted, incineration, wetlands	

---

## REMEDIAL ACTION PLANNED

---

<b>Project Name</b>	<b><u>WOONASQUATUCKET RIVER</u></b>	<b>ProjectID:</b> 01-10
<b>Last Updated:</b>	04/06/01	

---

### **Target Sediment Cleanup Standards (TSCS):**

#### **How TSCS Established:**

**Target Bank and Floodplain Cleanup Levels (if applicable):** <1 ppb dioxins  
(Source: Reference A-603)

"EPA has recommended that 1 ppb (TEQs, or toxicity equivalent) [dioxins] be used as a starting point for residential soil cleanup level for CERCLA non-time critical removal sites and as a preliminary goal (PRG) for remedial sites (Approach for Addressing Dioxin on Soil at CERCLA and RCRA Sites, OSWER Directive 9200.4-26, April 13, 1998). Based on this guidance, 1 ppb of dioxins (as 2,3,7,8-TCDD) has been established as the PRG for the Site situations involving residential exposure scenario."

#### **Other Target:**

### **Environmental Sample Data References:**

- **Sediment:**
- **Water:**
- **Fish:**

**Estimated Target Volume:** 1,300 cy of soils and sediment located in floodplain (an additional 1,100 cy will be removed for the restoration of the Allendale Dam)

**Planned Disposal Method:** Excavated contaminated floodplain soils and sediments to be incinerated off-site.

### **Estimated Calendar Time to Implement Remedy:**

**Estimated Time to Implement Remedy:** One year

**Estimated Cost to Implement Remedy:** \$2.6 million

**Stated Remedial Action Objectives (and Source):** (Source; Reference A-603)

"[The selected] alternative includes:

- a) removing all soil and adjacent sediment from residential-use properties that contains dioxin in excess of 1 ppb;
- b) replacing that soil with clean fill and loam placed to fit the existing grade;
- c) destroying the dioxin in soil through controlled incineration at an off-site location; and
- d) restoring the Allendale Dam, and returning the Allendale Pond water level to its original elevation."

## REMEDIAL ACTION PLANNED

---

<b>Project Name</b>	<b><u>WOONASQUATUCKET RIVER</u></b>	<b>ProjectID:</b> 01-10
<b>Last Updated:</b>	04/06/01	
<b>Measures of Success to be Used:</b>	(Source Reference A-603)  "Perform confirmatory sampling and screening at the side and bottom of excavation to demonstrate that dioxin levels of 1 ppb have been met... Following restoration of the historic water level in Allendale Pond, survey the areas to verify that areas of aquatic sediments with dioxin levels greater than 1 ppb are submerged under at least one foot of water; remove impacted sediments in the areas meeting the criteria for removal"	
<b>Planned Monitoring and Restoration:</b>	(Source Reference A-603) <ul style="list-style-type: none"><li>• "Inspect and repair backfilled areas, erosion controls and slope reinforcements on at least an annual basis for 30 years;</li><li>• Maintain flood gate in working condition; and</li><li>• Establish institutional control for the structure of Allendale Dam."</li></ul>	
<b>Agency Position on Sediment Removal (and Source):</b>		

***POTENTIALLY RESPONSIBLE PARTIES***

---

***Project Name*** **WOONASQUATUCKET RIVER**

***ProjectID:*** 01-10

***PRP Name:*** PRP INFORMATION NOT RELEASED

***PRPID:***

***Street Address:***

***City:***

***State:***

---

## **KEY CONTACTS**

---

***Project Name*** **WOONASQUATUCKET RIVER**

***ProjectID:*** 01-10

***Last Name:*** KEY CONTACT INFORMATION NOT RELEASED

***Contact ID:***

***First Name:***

***Title:***

***Company:***

***Address:***

***City:***

***State:***

***Postal Code:***

***Work Phone # :***

***Other Phone #:***

***Fax # :***

***Email Address:***

---

## REFERENCES

---

**Project Name** WOONASQUATUCKET RIVER

**ProjectID:** 01-10

**Reference Type:** A

**ReferenceID:** 440

**Title:** *Final Quality Assurance Project Plan  
The Centredale Manor Site, North Providence, Rhode Island*

**Location:** AEM

**Category:** Analytical Protocol/Issues/QAPP

**Prepared by/Author:** IT Corporation

**Preparer/Author  
Address:** 88C Elm Street  
Hopkinton, MA 01748

**Prepared For:** US EPA Region I

**Date Published:** July 14, 1999

**Key Words and  
Phrases:**

---

**Reference Type:** A

**ReferenceID:** 441

**Title:** *Sampling Plan: Phase One - Soil Sampling, Centredale Manor  
Site, North Providence, Rhode Island*

**Location:** AEM

**Category:** Contaminated Sediments: Investigation/Delineation

**Prepared by/Author:** US EPA ERT-Edison

**Preparer/Author  
Address:** Environmental Response Team  
Edison, NJ

**Prepared For:**

**Date Published:** February 5, 1999

**Key Words and  
Phrases:**

---

**Reference Type:** A

**ReferenceID:** 442

**Title:** *EPA Announces Sampling Results for Woonasquatucket River  
and Centredale Manor*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** US EPA Region I

**Preparer/Author  
Address:** New England Region

**Prepared For:** General Public

**Date Published:** June 24, 1999

**Key Words and  
Phrases:**

---



## REFERENCES

---

**Project Name** WOONASQUATUCKET RIVER

**ProjectID:** 01-10

**Reference Type:** A

**ReferenceID:** 603

**Title:** *Action Memorandum: Request for Removal Action - Centredale Manor Restoration Project, North Providence, RI*

**Location:** AEM

**Category:** ROD/Proposed Plan/Action Memo/Decision Document

**Prepared by/Author:** Anna F. Krasko

**Preparer/Author Address:** US EPA Region I  
Office of Site Remediation and Restoration  
One Congress Street  
Boston, MA 02114-2023

**Prepared For:** Patricia L. Meaney, Director  
Office of Site Remediation and Restoration

**Date Published:** January 18, 2001

**Key Words and Phrases:**

---

**Reference Type:** B

**ReferenceID:** 377

**Title:** *Press Release: EPA, R.I. Department of Health Issue Warning about Fish and Other Public Health Risks from Woonasquatucket River*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** US EPA Region I

**Preparer/Author Address:**

**Prepared For:** General Public

**Date Published:** July 2, 1998

**Key Words and Phrases:**

---

## REFERENCES

---

**Project Name** WOONASQUATUCKET RIVER

**ProjectID:** 01-10

**Reference Type:** B

**ReferenceID:** 378

**Title:** *Press Release: EPA Announces Dioxin Details and Action Plans*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** US EPA Region I

**Preparer/Author  
Address:**

**Prepared For:** General Public

**Date Published:** January 17, 1999

**Key Words and  
Phrases:**

---

**Reference Type:** B

**ReferenceID:** 379

**Title:** *Press Release: EPA Details Phase Two of Enforcement and  
Pollution Prevention Strategy for Woonasquatucket River*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** US EPA Region I

**Preparer/Author  
Address:**

**Prepared For:** General Public

**Date Published:** January 27, 1999

**Key Words and  
Phrases:**

---

**Reference Type:** B

**ReferenceID:** 1134

**Title:** *Centredale Manor Restoration Project*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** US EPA

**Preparer/Author  
Address:**

**Prepared For:** General Public

**Date Published:** May 10, 2004

**Key Words and  
Phrases:**

---

## REFERENCES

---

**Project Name** WOONASQUATUCKET RIVER

**ProjectID:** 01-10

**Reference Type:** C

**ReferenceID:** 540

**Title:** *Fast-Moving Rhode Island Site Leads List of 10 New, 8 Proposed NPL Sites*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:**

**Preparer/Author  
Address:**

**Prepared For:** Superfund Week

**Date Published:** February 4, 2000

**Key Words and  
Phrases:**

---

**Reference Type:** C

**ReferenceID:** 541

**Title:** *Proposed NPL Sites - Centredale Manor Restoration Project, North Providence, R.I.*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:**

**Preparer/Author  
Address:**

**Prepared For:** Superfund Week

**Date Published:** October 22, 1999

**Key Words and  
Phrases:**

---

**Reference Type:** C

**ReferenceID:** 600

**Title:** *Sampling Continues to Determine Final Cleanup Plan at R.I. NPL Site*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:**

**Preparer/Author  
Address:**

**Prepared For:** Superfund Week

**Date Published:** December 22, 2000

**Key Words and  
Phrases:**

---

## REFERENCES

---

**Project Name** WOONASQUATUCKET RIVER

**ProjectID:** 01-10

**Reference Type:** C

**ReferenceID:** 615

**Title:** *EPA Proposes \$6.7M Excavation for Centredale Soil, Sediment*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:**

**Preparer/Author**

**Address:**

**Prepared For:** Superfund Week

**Date Published:** October 20, 2000

**Key Words and  
Phrases:**

---

**Reference Type:** C

**ReferenceID:** 714

**Title:** *PRPs' Contractor Starts Work To Remove Contaminated Soils*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:**

**Preparer/Author**

**Address:**

**Prepared For:** Hazardous Waste/Superfund Week

**Date Published:** June 11, 2001

**Key Words and  
Phrases:**

---

**Reference Type:** C

**ReferenceID:** 1146

**Title:** *EPA Orders Five PRPs at R.I. Site to Dispose of Contaminated  
Soils*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:**

**Preparer/Author**

**Address:**

**Prepared For:** Hazardous Waste/Superfund Week

**Date Published:** April 9, 2001

**Key Words and  
Phrases:**

---

## **REFERENCES**

---

***Project Name*** **WOONASQUATUCKET RIVER**

***ProjectID:*** 01-10

***Reference Type:*** P

***ReferenceID:*** 3

***Title:*** ***Centredale Manor - North Providence, RI  
EPA Surface Soil Samples***

***Location:*** AEM

***Category:*** Analytical Data

***Prepared by/Author:*** US EPA Region I

***Preparer/Author  
Address:*** New England Region

***Prepared For:***

***Date Published:*** February 1999

***Key Words and  
Phrases:***

---

## ***FISH ADVISORIES***

---

***Project Name*** **WOONASQUATUCKET RIVER**

***ProjectID:*** 01-10

***Advisory:*** Woonosquatucket River ***AdvisoryID:*** 457  
***Extent:*** From mouth to Johnston/Smithfield line  
***Pollutant:*** dioxins  
***Species:*** all fish  
***Population:*** RGP  
***Population Definition:*** Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.

***Advisory Type:*** River ***Advisory Number:*** 4357

***Status (Active or Rescinded):*** Active ***Date Rescinded:***

***Contact Name:*** Bob Vanderslice ***Contact Number:*** 401-222-3424

---

***Advisory:*** Woonosquatucket River ***AdvisoryID:*** 458  
***Extent:*** From mouth to Johnston/Smithfield line  
***Pollutant:*** mercury  
***Species:*** all fish  
***Population:*** RGP  
***Population Definition:*** Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.

***Advisory Type:*** River ***Advisory Number:*** 4357

***Status (Active or Rescinded):*** Active ***Date Rescinded:***

***Contact Name:*** Bob Vanderslice ***Contact Number:*** 401-222-3424

---

***Advisory:*** Woonosquatucket River ***AdvisoryID:*** 459  
***Extent:*** From mouth to Johnston/Smithfield line  
***Pollutant:*** PCBs (total)  
***Species:*** all fish  
***Population:*** RGP  
***Population Definition:*** Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.

***Advisory Type:*** River ***Advisory Number:*** 4357

***Status (Active or Rescinded):*** Active ***Date Rescinded:***

***Contact Name:*** Bob Vanderslice ***Contact Number:*** 401-222-3424

---