

# FINAL PLAN OF REMEDIAL ACTION



501 ½ S. Market Street Site

501 ½ S. Market Street  
Wilmington, Delaware

October 14, 2010  
DNREC Project No.DE-1463

This Final Plan of Remedial Action (Final Plan) presents the Department of Natural Resources and Environmental Control's (DNREC's) determination that: historical operations resulted in the presence of metals, polynuclear aromatic hydrocarbons (PAHs), and petroleum constituents in soil at the site, and several metals, carbon disulfide, and petroleum compounds in shallow groundwater beneath the site.

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DNREC issued public notice of the Proposed Plan for the Site on August 18, 2010 and opened a 20-day public comment period, which ended on September 7, 2010. The Proposed Plan requires:

- Placement of a marker fabric and a one foot thick clean soil cap over the site to limit direct contact exposure to impacted soils;
- Repair and/or maintenance of the existing perimeter fence around the site until such time that a development plan is presented;
- Establishment of a Long Term Stewardship Plan for the site subject to DNREC approval and oversight; and
- Placement of a DNREC approved environmental covenant on the property deed consistent with Delaware's Uniform Environmental Covenants Act (UECA) to restrict the future land usage of the site to industrial/commercial or high-density residential, to prohibit land disturbing activities without DNREC's written approval, and to prohibit groundwater usage at the Site.

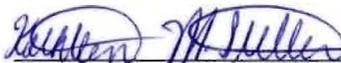
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The Proposed Plan also includes the location of additional information found on the DNREC web page and in the DNREC office at Lukens Drive in New Castle.

There were no comments or questions from the public regarding the Proposed Plan. Therefore, the Proposed Plan was adopted as the Final Plan (see attached).

## **Approval:**

**This Final Plan meets the requirements of the Hazardous Substance Cleanup Act.**

  
Kathleen Stiller, Program Manager II  
Division of Waste & Hazardous Substances



## PROPOSED PLAN OF REMEDIAL ACTION

501 ½ S. Market Street  
Wilmington, Delaware  
DNREC Project No. DE-1463



August 2010

Delaware Department of Natural Resources and Environmental Control  
Division of Waste Management  
Site Investigation & Restoration Branch  
391 Lukens Drive  
New Castle, Delaware 19720

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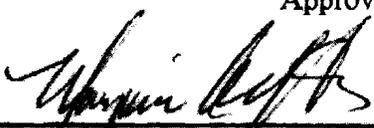
# PROPOSED PLAN OF REMEDIAL ACTION

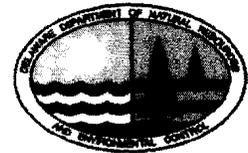
501 ½ S. Market Street  
Wilmington, Delaware  
DNREC Project No. DE-1463



**Approval:**

This Proposed Plan meets the requirements of the Hazardous Substance Cleanup Act.

Approved by:

Marjorie A. Crofts, Director Division of Waste Management
8.11.10
Date



**What is the 501 ½ S. Market Street Site?**

The Site is currently a vacant narrow strip of land approximately 60 feet by 740 feet between the Shellhorn & Hill property and the Colonial Parking lot on S. Market Street. There are no building structures on the property. The Site is being addressed under Delaware's Voluntary Cleanup Program (VCP).

**Tax Parcel Number:** 26-049.00-017

**Address:** 501 ½ S. Market Street, Wilmington, New Castle County, Delaware

**Nearest major intersection:** S. Market Street and A Street

**Area:** 1.01 acres

**Surrounding Properties:** Surrounding land is used for commercial/industrial purposes. Shellhorn & Hill is located to the north of the site, and a Colonial Parking parking lot (former Delaware Compressed Steel property) is located to the south. The Christina River is located to the west of the site, and ShopRite is located to the east of the site, across S. Market Street.

**Zoning:** 26W4 – Waterfront Res/Comm

**Site Utilities:** Water and sewer service is supplied to the area by the City of Wilmington. The undeveloped site is not connected to the utilities. However, a large Delmarva Power Company natural gas pipeline bisects the site.

**Surface water:** The nearest surface water body is the adjacent Christina River.

**Topography:** The Site is generally flat and is approximately 5 to 7 feet above mean sea level.

**Groundwater:** Shallow groundwater beneath the Site ranges from approximately 0.7 to 3.2 feet below ground surface.

**What happened at the 501 ½ S. Market Street Site?**

The Site was used as a railroad conveyance beginning in the early 1900s until 1982, when the B&O Railroad discontinued its use. The current property owner obtained the property in 1984, and subsequently removed the tracks and ties. The site has remained vacant since. Surrounding properties have historically been used for industrial or commercial purposes, including Shellhorn & Hill and Delaware Compressed Steel. Therefore, historical operations at the site and surrounding properties have the potential to impact soil and groundwater at the site. In addition, much of this area of Wilmington has historically been filled with soil containing debris and industrial type wastes containing substances regulated by the Hazardous Substance Cleanup Act (HSCA).

**What is the environmental issue at the 501 ½ S. Market Street Site?**

Environmental investigations performed at the site have indicated that metals, polynuclear aromatic hydrocarbons (PAHs), and petroleum constituents are present

in soil at the site. In addition, several metals, carbon disulfide, and petroleum compounds were detected in shallow groundwater beneath the site.

A Limited Subsurface Exploration was conducted in April 2009 along with a Phase I Environmental Site Assessment (ESA). A Remedial Investigation (RI) was conducted in October 2009, which included a baseline human health risk assessment.

- Phase I Environmental Site Assessment and Limited Subsurface Exploration –6/2009: Collection of soil and groundwater samples. Presence of metals, PAHs, and minor petroleum compounds in soil and/or groundwater at the site.
- Remedial Investigation (RI) -10/2009: Included the collection of soil and groundwater samples, as well as performance of a baseline human health risk assessment. This investigation confirmed the results of the previous investigation and further delineated areas of concern at the site.

#### **What does the owner want to do at the 501 ½ S. Market Street Site?**

The current property owner does not have any redevelopment plans for the Site. Instead, the property owner intends to clean up the Site through the VCP and sell the property. Additional future plans have not been identified.

#### **What clean-up actions are needed at the 501 ½ S. Market Street Site?**

A baseline human health risk assessment performed using the soil data collected from the Site indicates an unacceptable risk to residents if the site were redeveloped for residential use, and also to industrial workers in a commercial land use scenario. Therefore, the most cost effective remedial strategy is to place a clean soil cap over the site.

The property will be eligible for a Certificate of Completion of Remedy upon completion of the following remedial actions:

1. Placement of a marker fabric and a one foot thick clean soil cap over the site to limit direct contact exposure to impacted soils;
2. Repair and/or maintenance of the existing perimeter fence around the site until such time that a development plan is presented;
3. Establishment of a Long Term Stewardship Plan for the site subject to DNREC approval and oversight; and
4. Placement of a DNREC approved environmental covenant on the property deed consistent with Delaware's Uniform Environmental Covenants Act (UECA) to restrict the future land usage of the site to industrial/commercial or high-density residential, to prohibit land disturbing activities without DNREC's written approval, and to prohibit groundwater usage at the Site.

**What are the long term plans for the Site after the cleanup?**

As part of the remedial action for the Site, a Long Term Stewardship Plan is required. The O&M activities should include regular inspection and repair of the soil cap/vegetative cover. If and when the site is developed, the O&M plan will be re-evaluated based on existing site conditions and development details.

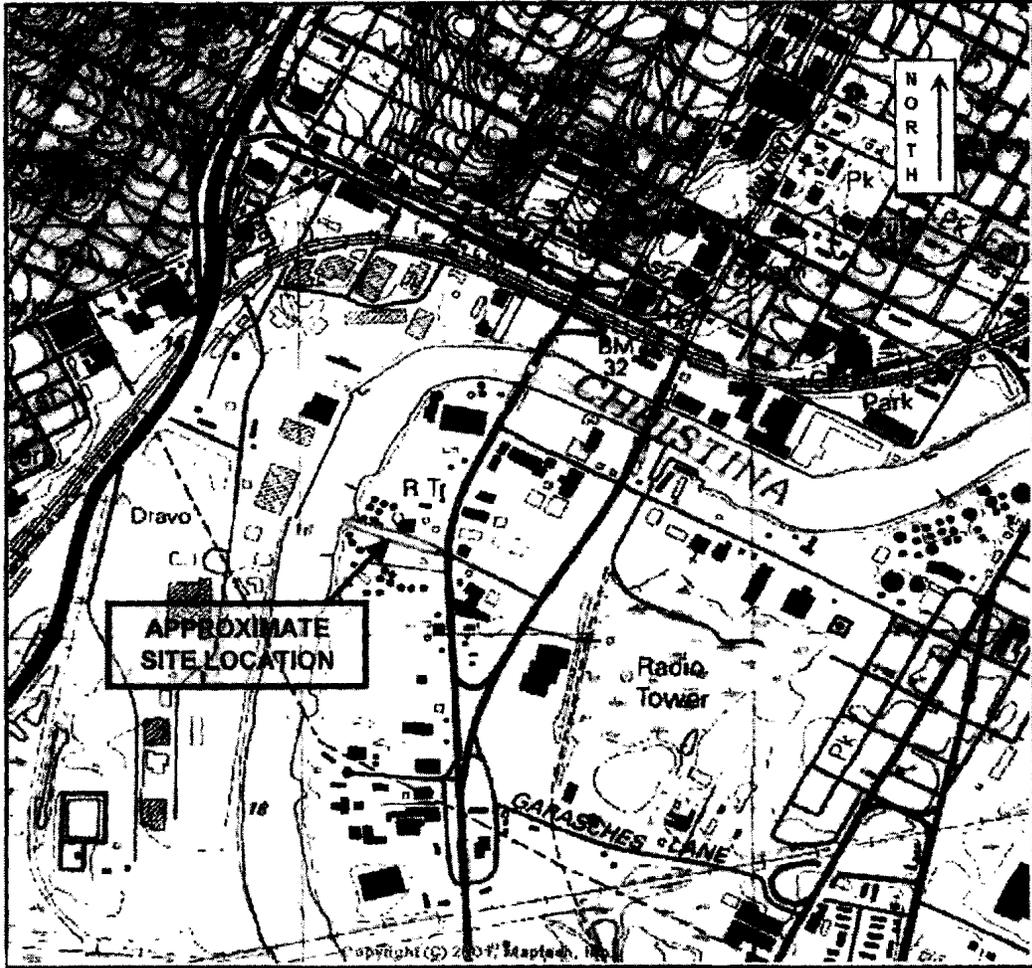
**How can I find additional information or comment on the Proposed Plan?**

The complete file on the site, including the Remedial Investigation Report, are available at the DNREC office, 391 Lukens Drive in New Castle. Most documents are also found at:

<http://www.nav.dnrec.delaware.gov/DEN3/Search/FacilitySearch.aspx>

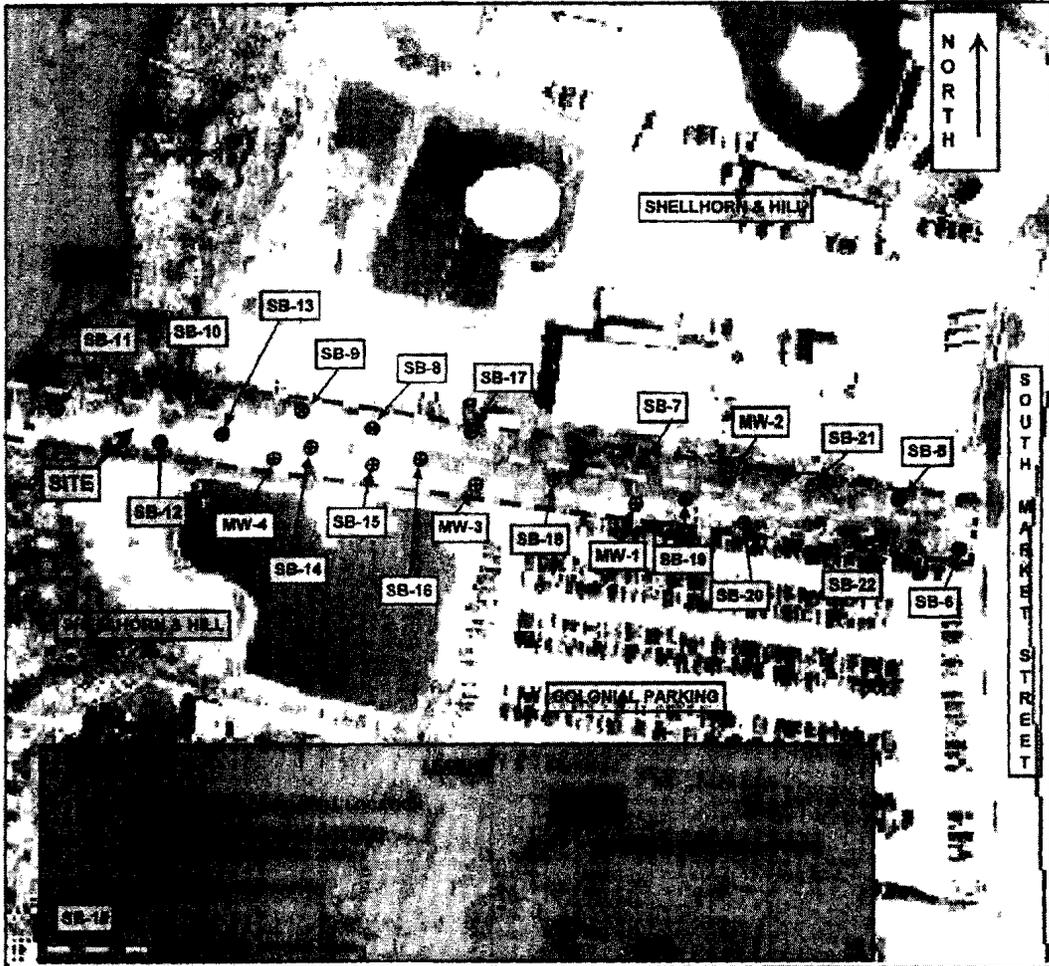
The 20-day public comment period begins on \_\_\_\_\_ and ends at close of business (4:30 pm) on \_\_\_\_\_. Please send written comments to the DNREC office or call John Cargill, Project Manager, at: 302-395-2600.

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This location sketch was adapted from the Maptech USGS Topographic Series, Edition 1.0 for Delaware (2001)

<b>FIGURE 1 - SITE LOCATION SKETCH</b> <b>RIEBMAN RAILROAD EASEMENT</b> 501 1/2 SOUTH MARKET STREET WILMINGTON, NEW CASTLE COUNTY, DELAWARE	
DATE: 11 August 2009	JOB NUMBER: 09-905.A
DRAWN BY: JPG	SCALE: N.T.S.
CHECKED BY:	FIGURE NO: 1
FILE NO: 09-905.C-Figures	SHEET 1 OF 1



This location sketch was adapted from the Delaware DataMIL website

<b>FIGURE 2 - REMEDIAL INVESTIGATION AND LSE SAMPLE COLLECTION LOCATION SKETCH</b> <b>RIEBMAN PROPERTY</b> 501 1/2 SOUTH MARKET STREET WILMINGTON, NEW CASTLE COUNTY, DELAWARE		
DATE:	08/13/09	JOB NUMBER: 09-905.C
DRAWN BY:	JPG	SCALE: 1 inch = approximately 100 feet
CHECKED BY:	RCG	FIGURE NO: 3
FILE NO:	09-905.C-Figures	SHEET 1 OF 1

## Glossary of Terms

## Used in this Proposed Plan

<b>Contaminant of Concern (COC)</b>	These are potentially harmful substances at concentrations above acceptable levels (eg metals and PAH).
<b>Certificate of Completion of Remedy (COCR)</b>	A formal determination by the Secretary of DNREC that remedial activities required by the Final Plan of Remedial Action have been completed.
<b>Exposure</b>	Contact with a substance through inhalation, ingestion, or direct contact with the skin. Exposure may be short term (acute) or long term (chronic).
<b>Final Plan of Remedial Action</b>	DNREC's proposal for cleaning up a hazardous site after it has been reviewed by the public and finalized.
<b>Hazardous Substance Cleanup Act (HSCA)</b>	Delaware Code Title 7, Chapter 91. The law that enables DNREC to identify parties responsible for hazardous substances releases and requires cleanup with oversight of the Department.
<b>Baseline Human Health Risk Assessment</b>	An assessment done to characterize the potential human health risk associated with exposure* to site related chemicals.
<b>Proposed Plan of Remedial Action</b>	A plan for cleaning up a hazardous site submitted by DNREC and subject to public comments.
<b>Risk</b>	Likelihood or probability of injury, disease, or death.

## **What is a *Proposed Plan*?**

A Proposed Plan of Remedial Action (Proposed Plan) is a summary of how DNREC plans to clean up a contaminated site. A Final Plan of Remedial Action (Final Plan) is the adoption of the Proposed Plan, after all comments made by the public within the comment period of twenty days have been considered and addressed by DNREC.

The Delaware State Legislature passed the Hazardous Substance Cleanup Act (HSCA) in 1990. The Legislature made sure that members of the public would be informed about environmental problems in their own neighborhoods and have a chance to express their opinion concerning the clean up of those environmental problems before DNREC takes action.

After DNREC studies a site, it summarizes the problems there and proposes one or more possible solutions in a Proposed Plan. The Proposed Plan contains enough information to allow lay persons to understand the site. More detailed information can be found in the reports and documents approved by DNREC. All of the documents and reports created by DNREC or consultants during the course of the investigation of the site are available to the public at the offices of DNREC-SIRB or at DNREC's website:

<http://www.nav.dnrec.delaware.gov/DEN3/Search/FacilitySearch.aspx>

DNREC issues the Proposed Plan by advertising it in at least one newspaper in the county where the site is located. The legal notices for the Proposed Plans and the Final Plans usually run on Wednesdays or Sundays in the legal classified section of the News Journal and/or the Delaware State News. The public comment period begins on the day (Wednesday), or the day after (Sunday) the newspaper publishes the legal notice for the Proposed Plan.

DNREC frequently holds public meetings during the comment period. Those meetings are usually held near the site in the evening. Citizens can request a public meeting if DNREC did not already schedule one.

Comments are collected at the public meetings, by phone or in writing. DNREC considers all comments and questions from the public before the Proposed Plan is finalized and adopted as a Final Plan.

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