

# SECOND AMENDED FINAL PLAN OF REMEDIAL ACTION



## CLEVELAND AVENUE LANDFILL SITE

*10 McKees Lane  
Newark, Delaware*

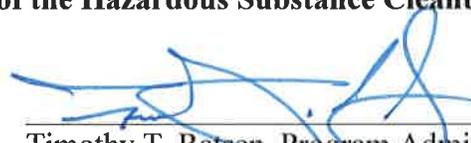
*June 2014  
DNREC Project No. DE-0052*

This Final Plan of Remedial Action (Final Plan) presents clean-up actions required by the Department of Natural Resources and Environmental Control (DNREC) to address environmental contamination at the Cleveland Avenue Landfill Site.

DNREC issued public notice of the Second Amended Proposed Plan of Remedial Action (Proposed Plan) for the Site on May 14, 2014 and opened a 20-day public comment period. The Proposed Plan is attached. There were no comments from the public; therefore, the Proposed Plan is adopted as the Final Plan.

### **Approval:**

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

  
\_\_\_\_\_  
Timothy T. Ratsep, Program Administrator  
Site Investigation and Restoration Section

*June 3, 2014*  
\_\_\_\_\_  
Date



# **SECOND AMENDED PROPOSED PLAN OF REMEDIAL ACTION**

Cleveland Avenue Landfill Site  
Newark, Delaware  
DNREC Project No. DE-0052



May 2014

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

## **CONTENTS**

- Figures: 1 & 2
- Glossary of Terms

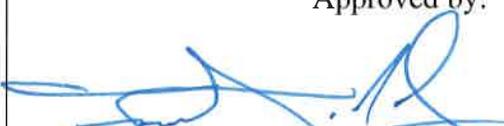
# SECOND AMENDED PROPOSED PLAN OF REMEDIAL ACTION

Cleveland Avenue Landfill Site  
Newark, Delaware  
DNREC Project No. DE-0052



**Approval:**

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

Approved by:

Timothy Ratsep, Program Administrator Division of Waste and Hazardous Substances
Date: 



### **What is the Amended Proposed Plan of Remedial Action?**

The Proposed Plan of Remedial Action (Proposed Plan) summarizes the clean-up (remedial) actions that are being proposed to address contamination found at the Site. The Proposed Plan is issued to solicit public comment. A legal notice is published in the newspaper for a 20-day comment period. The Department of Natural Resources and Environmental Control (DNREC) considers and addresses all public comments received and subsequently publishes a Final Plan of Remedial Action (Final Plan) for the Site.

A proposal for certain substantial changes in site use (including site design components and features) and the receipt of new information regarding the release of contamination identified at a Site, after the Proposed Plan has been issued, are instances where an Amended Proposed Plan may be issued to once again solicit public comment. DNREC uses a comprehensive assessment, which includes the new information, to develop the new proposal for remedial action at the Site.

### **What is the Cleveland Avenue Landfill Site?**

The Cleveland Avenue Landfill Site is located at 10 McKees Lane in Newark and the New Castle County tax parcel number is 18.0150-0-001 (Figure 1). The Site is approximately 4.02 acres in size and the nearest intersection is Cleveland Avenue and McKees Lane (Figure 2). The Site is the former location of McKees Park. The Site is mostly grass-covered, but has an area paved with asphalt that used to be the basketball courts during the time that the park was accessible to the public. The White Clay Creek flows along the northern boundary of the Site.

The Site is owned by the City of Newark. The City of Newark entered into a Voluntary Cleanup Program (VCP) Agreement with the Department of Natural Resources and Environmental Control (DNREC) - Site Investigation and Restoration Section (SIRS) to perform a remedial investigation and address contamination determined to be present on the Site.

### **What happened at the Cleveland Avenue Landfill Site?**

The City of Newark operated a wastewater treatment plant on the Site between 1914 and the mid-1950s. In addition, from approximately 1947 until the late 1950s, the City of Newark operated a residential waste landfill on the property occupying the Site, as well as the adjacent property. At the time of closure of both operations, all equipment was disassembled and removed from the Site, except for the in-ground sewage treatment tanks. These tanks were emptied, cleaned, and filled in with dirt and stone. This area and the landfill area were capped with a layer of top soil and stabilized with grass.

The adjacent property was sold to the Newark Housing Authority (NHA) in 1960, and soon afterwards the NHA built the Cleveland Heights Housing Development on their property. The

housing development is currently unoccupied. The adjacent Cleveland Heights Development Site (DE-1367) is being addressed separately with the NHA.

### **Why is a Second Amended Proposed Plan of Remedial Action necessary for the Cleveland Avenue Landfill Site?**

Based on a redevelopment plan for the Site that now includes the construction of an enclosed structure, additional remedial action requirements for the Site are proposed in this Second Amended Proposed Plan.

### **What is the environmental problem at the Cleveland Avenue Landfill Site?**

The results of samples collected during environmental investigations conducted at the Site indicated that the three (3) contaminants of concern (COCs) in soil for an unrestricted use (residential) exposure scenario are multiple metals and semi-volatile organic compounds (SVOCs) based on a preliminary risk assessment. Conversely, benzo(a)pyrene, an SVOC, is the only, seemingly isolated, COC in soil for a restricted use (commercial/industrial) exposure scenario. The COCs in groundwater are select metals, SVOCs and volatile organic compounds (VOCs). Quarterly groundwater samples collected in 2011 and 2012 indicated the presence of various VOCs in varying concentrations likely present from the buried landfill material. There were also exceedences of select metals, which are often naturally-occurring in the environment, in surface water (White Clay Creek) and sediment. Based on a comparison of concentrations detected in upstream and downstream samples collected from the Creek; however, the conclusion was that groundwater discharging from the Site did not appear to be negatively impacting the Creek (surface water or sediment) at this time.

The investigations also confirmed that landfilled materials underlie a portion of the Site. The biodegradation or breaking down of the landfilled material has the potential to generate gas, namely natural gas, also called methane. Under certain conditions and at certain concentrations, this gas can pose an explosive hazard and/or short-term health hazard if present in fully-enclosed areas. To prevent the accumulation of any landfill gasses in enclosed structures on site, a venting system will need to be installed in any enclosed structures constructed on the Site.

### **What clean-up actions have been taken at the Cleveland Avenue Landfill Site?**

In 2010, the Site was fenced in with a 6-foot high fence to secure the area from public access and beginning in 2013, groundwater, surface water and sediment monitoring is being performed on the Site in accordance with the DNREC-approved Long-Term Stewardship Plan.

### **What does the owner want to do at the Cleveland Avenue Landfill Site?**

The City of Newark has plans to have solar panels and an associated storage shed installed on the Site.

## **What clean-up actions are needed at the Cleveland Avenue Landfill Site?**

DNREC proposes the following remedial actions for the Site:

1. Maintain the 6-foot high fence surrounding the Site to prevent exposure to contaminated surface soil;
2. Install and operate a DNREC-approved gas mitigation system beneath any enclosed structures on the Site. The system will consist of a barrier placed beneath the building foundation to suppress soil gas, along with piping that will divert the soil gas so that it will vent outside of the structure.
3. Modify and adhere to the DNREC-approved Long-Term Stewardship (LTS) (Operations and Maintenance) Plan for DNREC approval. The LTS Plan should detail: 1) the inspection schedule to be followed in order to ensure the integrity of the fence, and 2) the groundwater, surface water and sediment monitoring network and schedule to be followed in order to monitor the attenuation of the groundwater COCs and the potential for adverse impact to the White Clay Creek;
4. Develop and implement a DNREC-approved Contaminated Materials Management Plan (CMMP) to provide guidance on how to safely handle any potentially-contaminated soil and groundwater encountered during any intrusive activities;
5. An Environmental Covenant, consistent with Delaware's Uniform Environmental Covenants Act (Title 7, Del. Code Chapter 79, Subtitle II) (UECA), will be recorded in the office of the Recorder of Deeds to include the following:
  - a. Use Restriction. Use of the Property shall be restricted solely to those non-residential type uses permitted within Commercial, Manufacturing, or Industrial Districts;
  - b. Interference with Remedy. There shall be no digging, drilling, excavating, grading, constructing, earth moving, or any other land-disturbing activities on the Property without the prior written approval of DNREC-SIRS; including any repair, renovation or demolition of ground-floor building slabs or the gas mitigation system components of enclosed structures on the Property without the prior written approval of DNREC-SIRS;
  - c. Limitation of Groundwater Withdrawal. No groundwater wells shall be installed, and no groundwater shall be withdrawn from any well, on the Property without the prior written approval of DNREC-SIRS and DNREC Division of Water;
  - d. Compliance with Long Term Stewardship Plan. Perform all work required by the Long Term Stewardship Plan ("LTS Plan"), as issued, approved, modified or amended by DNREC;

- e. Compliance with Contaminated Materials Management Plan. Perform all work required by the Contaminated Materials Management Plan (“CMMP”), as issued, approved, modified or amended by DNREC.

### **What are the long-term plans for the Cleveland Avenue Landfill Site after the cleanup?**

The Site use will be restricted to non-residential (commercial/industrial) purposes in accordance with the recording of an environmental covenant. All other requirements set forth in the environmental covenant shall be adhered to; including performance of future intrusive Site work in accordance with the CMMP.

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

The complete file on the Site, including the Site Inspection and Remedial Investigation, are available at the DNREC office located at 391 Lukens Drive in New Castle, 19720. Most documents are also found on: <http://www.nav.dnrec.delaware.gov/DEN3/>

The 20-day public comment period begins on May 14, 2014 and ends at close of business (4:30 pm) on June 2, 2014. Please send written comments to the DNREC office at 391 Lukens Drive, New Castle, DE 19720 to Lindsay Hall, Project Manager, or Robert Newsome, Public Information Officer.

Figure 1: Site Location Map

Figure 2: Site Map

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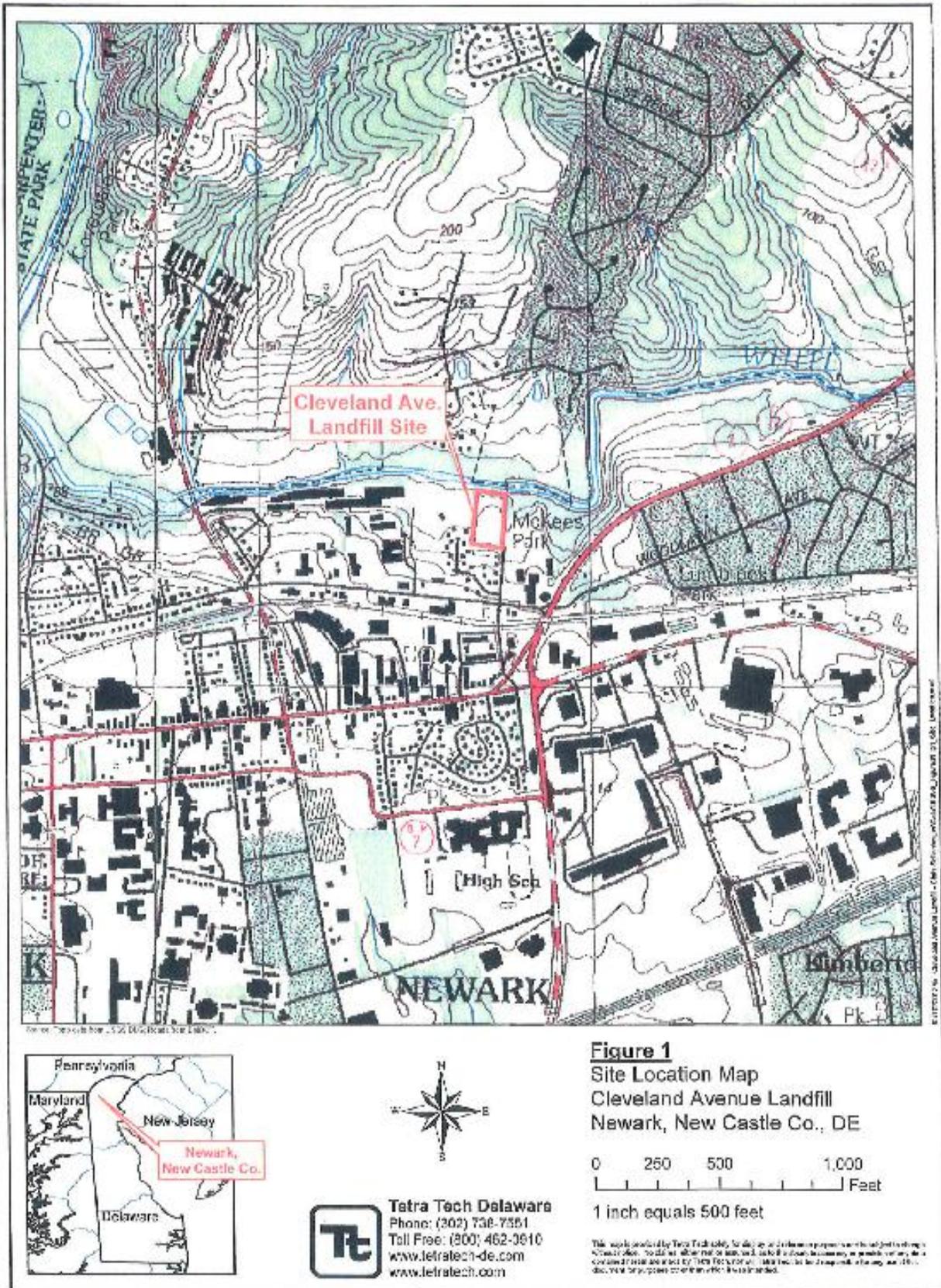


Figure 1

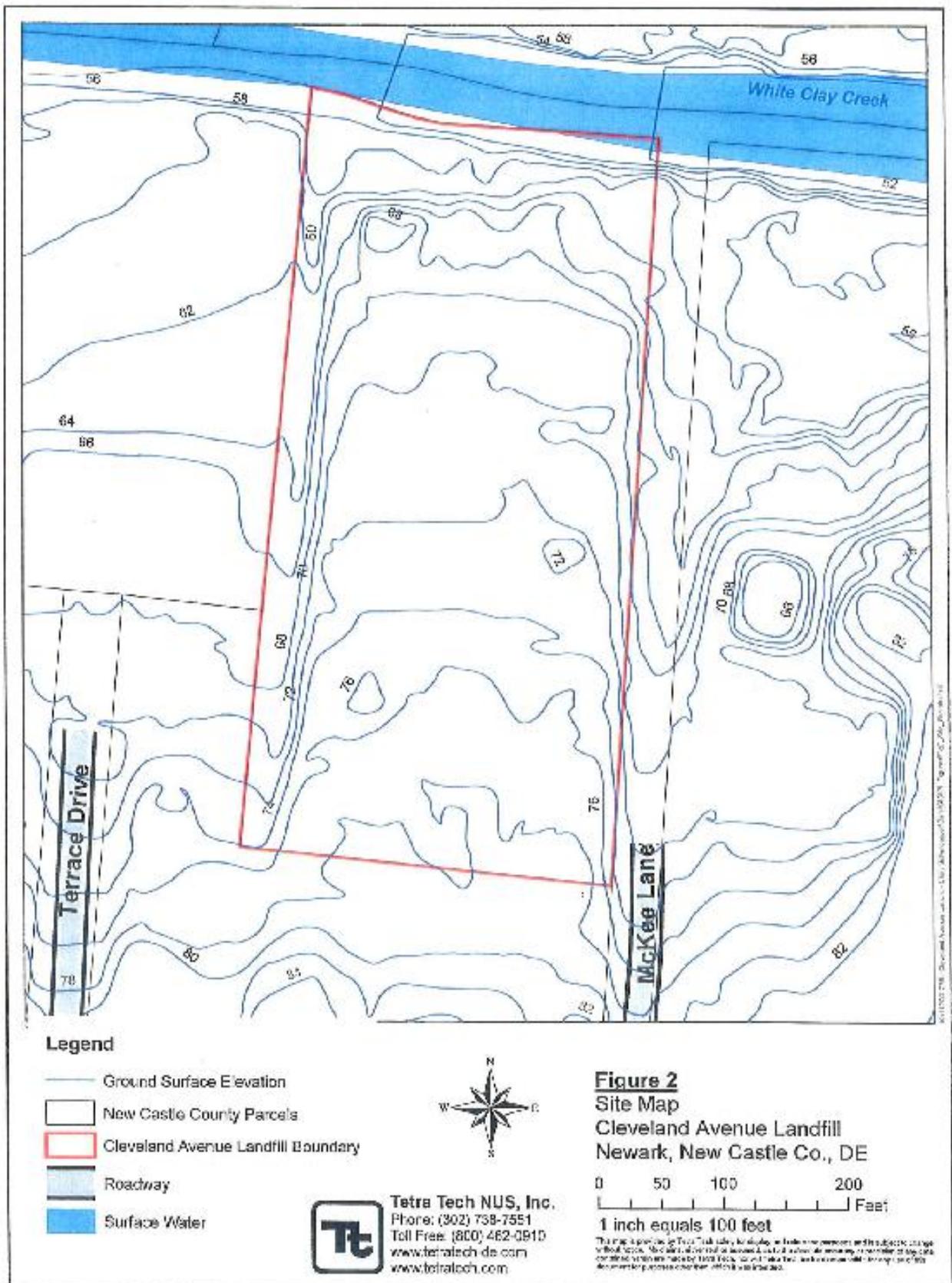


Figure 2

## Glossary of Terms Used in this Proposed Plan

<b>Contaminant of Concern (COC)</b>	Potentially harmful substances at concentrations above acceptable levels.
<b>Contaminated Materials Management Plan (CMMP)</b>	A written plan specifying how potentially contaminated material at a Site will be sampled, evaluated, staged, transported and disposed of properly.
<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 adopted plan for cleaning up a hazardous site
<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>Preliminary Risk Assessment</b>	A quantitative evaluation of only the most obvious and likely risks at a site
<b>Remedial Investigation (RI)</b>	Thorough environmental study of a site which includes 1) sampling of site environmental media and/or wastes on the property and 2) conducting a preliminary risk assessment using the data collected to determine the risk posed to human health and the environment
<b>Restricted Use</b>	e.g. Commercial or Industrial setting
<b>Risk</b>	Likelihood or probability of injury, disease, or death.
<b>Site Inspection (SI)</b>	Environmental study of a site which includes the sampling of soils, groundwater, surface water, sediment and/or wastes on the property, as appropriate. This evaluation is performed on behalf of the United States Environmental Protection Agency (U.S. EPA)
<b>Site Investigation and Restoration Section (SIRS)</b>	Section of DNREC which oversees cleanup of sites that were contaminated as a result of past use
<b>Uniform Risk-Based Remediation Standards (URS)</b>	A set of concentration criteria for various contaminants potentially present in site media that are developed for protection of human health and the environment
<b>Unrestricted Use</b>	e.g. Residential setting
<b>Voluntary Cleanup Program Agreement (VCP)</b>	This legal agreement is between the property owner of a Site and the DNREC. The developer agrees to investigate and cleanup their property under the oversight of the Department.