

FINAL PLAN OF REMEDIAL ACTION



4001 New Castle Avenue Site aka Former Dixon Auto Sales Site

*4001 New Castle Avenue Site
Wilmington, Delaware*

*October 2015
DNREC Project No. DE-1455*

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 4001 New Castle Avenue Site/Former Dixon Auto Sales Site.

DNREC issued public notice of the Proposed Plan of Remedial Action (Proposed Plan) on September 6, 2015 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.

Am Salahuddin for TTR

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

10/5/15

Date



PROPOSED PLAN OF REMEDIAL ACTION

4001 New Castle Avenue Site
AKA Former Dixon Auto Sales Site
Wilmington, Delaware
DNREC Project No. DE-1455



September 2015

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

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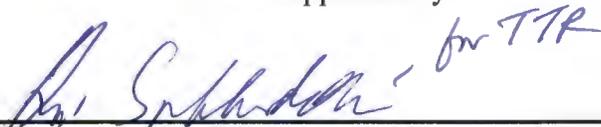
PROPOSED PLAN OF REMEDIAL ACTION

4001 New Castle Avenue Site
AKA Former Dixon Auto Sales Site
Wilmington, Delaware
DNREC Project No. DE-1455



Approval:

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

Approved by:
 for TTR
Timothy Ratsep, Environmental Program Administrator Site Investigation & Restoration Section
9/3/15
Date



What is the 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 for public comment. A legal notice is published in the newspaper for a 20-day comment period. DNREC considers and addresses all public comments received and publishes a Final Plan of Remedial Action (Final Plan) for the Site.

What is the 4001 New Castle Avenue Site?

The Site consists of one approximately 0.6-acre parcel (New Castle County Tax Parcel No. 10- 005.40-437) located at 4001 New Castle Avenue in New Castle County, Delaware (Figure 1). Public water, public sewer, and road access are all present at the Site. The Property contains an approximately 2,000 square-foot, 1-story commercial building currently in use for a vehicle salvage business. The entire Site is covered by either the existing building, former concrete pump islands, or asphalt-paved parking areas, as shown on the 2014 aerial photograph seen on Figure 2.

The Site is located within a predominantly commercial use area. It is bounded by Rogers Road and commercial properties to the west, New Castle Avenue (Route 9) and commercial properties to the east, and a mix of commercial and residential properties to the north and south (Figure 2).

What happened at the 4001 New Castle Avenue Site?

From the early 1900's through the mid-1950's, the Site was used as farmland. Around 1954 the Site was used as a gas station and auto/truck service center. In recent years, the Site has been used for an automobile sales and service center, and potentially automobile salvage.

What is the environmental problem at the 4001 New Castle Avenue Site?

A Brownfield Investigation (BFI) performed in March 2015 at the Site found that both the shallow and deep soil samples contained three (3) semi-volatile organic compounds (two polynuclear aromatic hydrocarbons [benzo(a)pyrene and dibenz(a,h)anthracene] and 2-methynaphthalene) at concentrations above DNREC's soil screening levels, and consequently were selected as contaminants of potential concern (COPC). Soil samples did not contain elevated concentrations of gasoline related constituents. The metals arsenic, thallium, and antimony were present at concentrations above DNREC's soil screening levels. A risk assessment to determine the soil exposure risks was performed for current and likely future Site use using the EPA/ Oak Ridge Laboratories online Risk Assessment Information System (RAIS). Soil contact risk exceeded DNREC's allowable risk thresholds for the

possible future residential use of the Site. Soil contact risks were determined to be acceptable for future commercial / industrial use scenarios including indoor workers, outdoor workers, composite workers and construction / excavation workers.

Groundwater samples collected from the Site contained both organic compounds and inorganic metals at concentrations above DNREC's groundwater Screening Levels. The metals arsenic, iron, cobalt, manganese and lead were present in some or most groundwater samples in both filtered (dissolved metals) and unfiltered (total metals) samples at concentrations above DNREC's groundwater Screening Levels. Volatile organic compounds detected in three samples indicate gasoline or gasoline additives are present in groundwater at concentrations above DNREC's Screening Levels, as were two semi-volatile compounds and one pesticide compound. Site groundwater is not used for tap water /drinking water, nor will it be used for drinking water in the future. However, the risks from the hypothetical future consumption of site groundwater were quantified inputting maximum detected contaminant concentrations into RAIS. Tap Water ingestion risks were determined to be unacceptable under future residential and commercial indoor worker scenarios, largely due to benzene and naphthalene which can potentially pose both inhalation and ingestion risks. An analysis using the Johnson & Ettinger model demonstrated that volatile organic compounds present at Site using maximum groundwater concentrations would not generate sufficient soil vapors to migrate to, and adversely impact the quality of, indoor air for the existing building under existing and proposed uses.

The Human Health Risk Assessment determined that hypothetical, future residential land use at the Site could pose unacceptable risks to future residents from direct contact soil exposures and from ingestion and/or inhalation of groundwater contaminants.

What clean-up actions have been taken at the Former Pep-Up Site?

Under an "Owner Inability to Pay Determination", DNREC's Tank Management Branch (now Section) contracted and oversaw the July 1999 removal of four steel gasoline Underground Storage Tanks (USTs) from the Dixon Site; three were 4000-gallon capacity tanks and one was a 2000-gallon capacity. An additional diesel tank was discovered at the time of removals, which was subsequently removed in August of 1999 after obtaining additional funding. Following the review of the post-excavation soil samples in which DNREC issued a No Further Action (NFA) letter on 11/17/1999.

During the Brownfield Investigation field work in March 2015, a suspected out-of-service waste oil UST was identified in the vicinity of a wooden addition to the existing building. The 550 gallon UST was removed and a limited over-excavation of soils was performed on April 16, 2015. Tank closure paperwork was submitted to the TMS in July 2015 for proper project close-out.

What does the owner want to do at the 4001 New Castle Avenue Site?

The Site will be used for commercial use, consisting primarily of automobile sales. In past years, the Site may have been used for automobile salvage and storage. According to the Site's developer, the future use of the Site will not involve processing vehicles for scrap.

What additional clean-up actions are needed at the 4001 New Castle Avenue Site?

DNREC proposes the following remedial actions for the Site, which need to be completed before a Certificate of Completion of Remedy (COCR) can be issued.

1. A proposed Environmental Covenant must be submitted to DNREC for approval within 60 days of the issuance of the Final Plan of Remedial Action.
2. An Environmental Covenant, consistent with Delaware's Uniform Environmental Covenants Act (7 Del.C. Chapter 79, Subchapter II) must be recorded in the Office of the [County] Recorder of Deeds within 60 days of the issuance of the Final Plan of Remedial Action. The Environmental Covenant must include the following activity and/or use restrictions:
 - [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.] 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;
 - [c.] Compliance with Contaminated Materials Management Plan. All work required by the Contaminated Materials Management Plan must be performed to DNREC's satisfaction in accordance with the Plan.
3. A Contaminated Materials Management Plan (CMMP) must be submitted to DNREC within 60 days of the issuance of the Final Plan of Remedial Action. The CMMP will provide guidance to enable construction workers to safely handle any potential contaminated soil and groundwater at the Site.
4. The CMMP will be implemented upon its approval by DNREC.
5. A request for a Certification of Completion of Remedy (COCR) must be submitted to DNREC within 60 days of issuance of the Final Plan of Remedial Action.

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

The Site use will be restricted to non-residential (commercial/industrial) purposes by recording the environmental covenant. The CMMP will be completed and available for the Site. Due to the absence of risk to commercial workers, no further monitoring will be required.

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

The complete file on the Site including the Brownfield Investigation and the various reports are available at the DNREC office, 391 Lukens Drive in New Castle, 19720. Most documents are also found on:

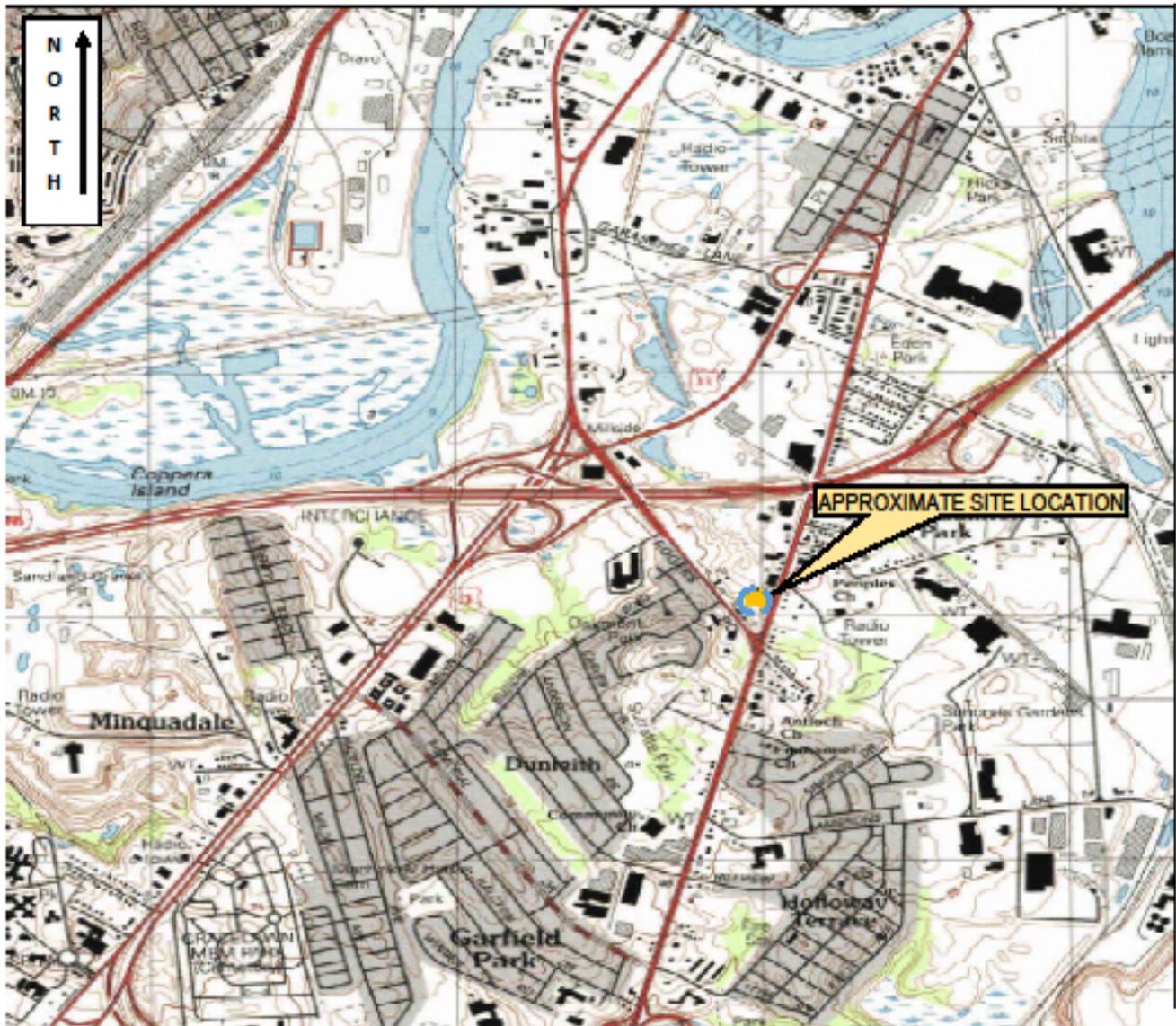
<http://www.nav.dnrec.delaware.gov/DEN3/>

The 20-day public comment period begins on September 6, 2015 and ends at close of business (4:30 pm) on September 28, 2015. Please send written comments to the DNREC office at 391 Lukens Drive, New Castle, DE 19720 to Kristen Thornton, Project Officer or Robert Newsome, Public Information Officer.

Figure 1: Site Location Sketch

Figure 2: BFI Sample Location Map

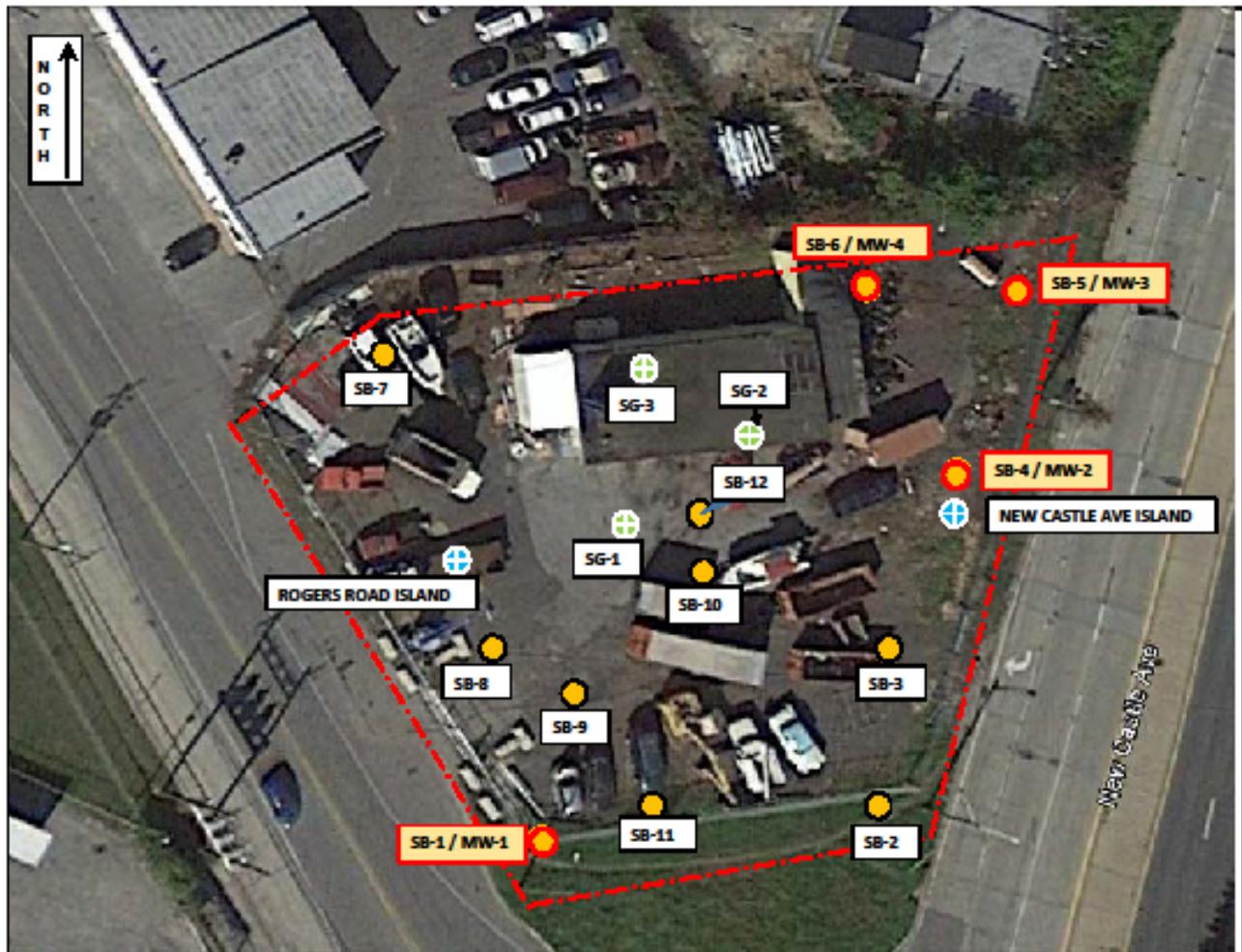
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NOTE:
 THIS LOCATION SKETCH WAS ADOPTED FROM THE USGS TOPOGRAPHIC MAP,
 7.5 -MINUTE SERIES, FOR WILMINGTON-SOUTH, DE (1997)

 <p style="text-align: center;">Ten Bears Environmental Assoc. Co. 1080 S. Chapel St., Suite 200 Newark, DE 19702 Phone: (302) 731-8633 Fax: (302) 731-8655</p>	<p>FIGURE 1 - SITE LOCATION SKETCH DIXON AUTO SALES SITE (DE-1455) 4001 NEW CASTLE AVENUE NEW CASTLE, NEW CASTLE COUNTY, DELAWARE</p>	
	<p>DATE: 1/21/2015</p> <p>DRAWN BY: BKG</p> <p>CHECKED BY: EWR</p> <p>FILE NO: 14-1431.A-FIGS</p>	<p>JOB NUMBER: 14-1431.A</p> <p>SCALE: 1" = approx. 2,000 feet</p> <p>FIGURE NO: 1</p> <p>SHEET 1 OF 1</p>

Figure 1



- LEGEND:**
- - - APPROXIMATE PROPERTY BOUNDARY
 - SOIL BORING WITH SURFACE SOIL AND SUBSURFACE SOIL SAMPLE COLLECTED
 - SOIL BORING / SOIL SAMPLING LOCATION COMPLETED AS A SHALLOW GROUNDWATER MONITORING WELL
 - + SHALLOW "SOIL GAS" BORING, SHALLOW SOIL SAMPLE LOCATION ONLY
 - + BACKHOE TEST PIT / SUBSURFACE SOIL SAMPLE

THIS LOCATION SKETCH WAS ADOPTED FROM A 2014 AERIAL PHOTOGRAPH
PROVIDED BY GOOGLE EARTH™



Ten Bears Environmental

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1080 South Chapel Street, Suite 200
Newark, Delaware 19702
Phone: (302) 731-8833 Fax: (302) 731-8898

FIGURE 3 - BFI SAMPLE LOCATION MAP
DIXON AUTO SALES SITE (DE-1455)
4001 NEW CASTLE AVENUE
NEW CASTLE, NEW CASTLE COUNTY, DELAWARE

DATE:	03/10/2015	JOB NUMBER:	15-1431.B
DRAWN BY:	BKG	SCALE:	1" = approx. 40 feet
CHECKED BY:	EWR	FIGURE NO:	3
FILE NO:	15-1431.B-Figs	SHEET	1 OF 1

Figure 2

Glossary of Terms Used in this Proposed Plan

Brownfield Development Agreement (BDA)	This legal agreement is between a potential developer of a Delaware-certified Brownfields Site and the DNREC. The developer agrees to investigate and cleanup a Brownfields property under the oversight of the Department in exchange for liability protection.
Brownfield Investigation (BFI)	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.
Certified Brownfield	A Brownfield that DNREC has determined is eligible for partial funding through the Delaware Brownfields Program
Certification of Completion of Remedy (COCR)	A formal determination by the Secretary of DNREC that remedial activities required by the Final Plan of Remedial Action have been completed.
Contaminant of Concern (COC)	Potentially harmful substances at concentrations above acceptable levels.
Contaminated Materials Management Plan	A written plan specifying how potentially contaminated material at a Site will be sampled, evaluated, staged, transported and disposed of properly.
Exposure	Contact with a substance through inhalation, ingestion, or direct contact with the skin. Exposure may be short term (acute) or long term (chronic).
Final Plan of Remedial Action	DNREC's adopted plan for cleaning up a hazardous site.
Groundwater Management Zone	A geographical area where DNREC restricts drilling for ground water because it is contaminated
Hazardous Substance Cleanup Act (HSCA)	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.
Human Health Risk Assessment (HHRA)	An assessment done to characterize the potential human health risk associated with exposure* to site related chemicals.
Risk	Likelihood or probability of injury, disease, or death.
Risk Assessment Guidance for Superfund (RAGS)	An EPA guidance document for superfund sites
Restricted Use	Commercial or Industrial setting
SIRS	Site Investigation Restoration Section of DNREC, which oversees cleanup of sites that were contaminated as a result of past use, from dry cleaners to chemical companies
US EPA	United States Environmental Protection Agency