



PROPOSED PLAN OF REMEDIAL ACTION

Hudson Pit
Lewes, Delaware
DNREC Project No. DE-0107



May 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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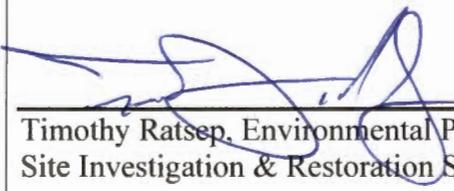
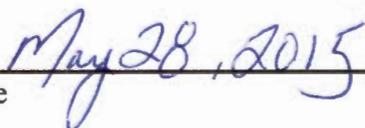
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Hudson Pit
Lewes, Delaware
DNREC Project No. DE-0107



Approval:

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

Approved by:	
	
Timothy Ratsep, Environmental Program Administrator Site Investigation & Restoration Section	
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 Hudson Pit Site?

The Hudson Pit Site is located in Lewes, Delaware, and consists of four tax parcels (33501100005900, 33501100005500, 33501100005600 and 33501100005901), totaling approximately 35.91 acres (Figure 1). The Site is surrounded to the west by the Reserves of Nassau on Nassau Road and Taramino on Taramino Place, to the south by Dutch Acres and St. Jude the Apostle Church on Tulip Drive, to the east by The Village of Five Points on Savannah Road and, and to the north by Sand Dunes Village and Nassau Station both on New Road. The nearest intersection to the Site is Route 1 and Tulip Drive. The Site consists of dense wooded areas, wetland areas and grassy areas, and is zoned agricultural residential (Figure 2).

What happened at the Hudson Pit Site?

The Site was historically used as agricultural fields, and then as a borrow pit. Excavated areas were reportedly filled with stumps, construction debris and other inert materials. Sands from an oil spill cleanup in Rehoboth and Dewey beaches were disposed of on the site in 1977.

What is the environmental problem at the Hudson Pit Site?

A Brownfield Investigation performed in 2014 at the Site found that the surface soil in a small area on the eastern portion of the site contained arsenic above DNREC soil standards for residential use; also, the subsurface soil in the northern portion of the site contained oil sands that pose a potential risk to construction workers. There are localized surface water and sediments near the historic borrow pits that present a potential risk for recreational child use (Figure 3). In addition, calculations indicated that there is a risk from ingesting groundwater due to metals.

What does the owner want to do at the Hudson Pit Site?

The Site is planned to be developed into a residential community with single family homes, duplexes, townhomes and parking areas.

What clean-up actions are needed at the Hudson Pit 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. Submit a Remedial Action Work Plan for DNREC's approval within 60 days after the issuance of the Final Plan of Remedial Action.
2. Excavate and dispose of the Arsenic impacted area near sample SS-10, along the eastern border of the Site.
3. Cap the area of subsurface oil sands in the northern portion of the Site, and the areas near samples SW-3, SW-4, and SW-5 with at least two feet of DNREC-approved fill or impervious material such as buildings, asphalt, or concrete to limit exposure to the soil.
4. Buried organic debris and biodegradable waste, e.g. tree stumps, paper products, etc., must be excavated from the Site. If it is required that off-site material be imported to backfill any excavations, it must meet residential use quality requirements. This excavation must be performed pursuant to the requirements and schedule indicated in the DNREC-approved Remedial Action Work Plan.
5. Submit an Environmental Covenant for DNREC's approval within 60 days of DNREC approving the Long Term Stewardship Plan.
6. Record an Environmental Covenant, consistent with Delaware's Uniform Environmental Covenants Act (Title 7, Del. Code Chapter 79, Subtitle II) (UECA), in the office of the Recorder of Deeds within 60 days of DNREC approving the Long Term Stewardship Plan. The Environmental Covenant will include the following:
 - a. 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;
 - b. 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; and
 - c. Compliance with Contaminated Material Management Plan. All work required by the Contaminated Materials Management Plan (CMMP) shall be performed to the satisfaction of DNREC in accordance with the Plan.
7. Submit to DNREC a CMMP within 60 days of the issuance of a Final Plan of Remedial Action. The CMMP will allow construction workers to safely handle any potential contaminated soil and groundwater at the Site.
8. Implement the CMMP upon DNREC approval.

9. Submit a Long-Term Stewardship (LTS) Plan as per the schedule set in the DNREC approved Remedial Action Work Plan. The LTS plan will detail: 1) the groundwater monitoring requirements and schedule to be followed in order to monitor the attenuation of the groundwater Contaminants of Concern (COC); and 2) the site-inspection schedule to be followed in order to ensure the long-term integrity of the remedy.
10. Implement the LTS Plan within 60 days upon DNREC approval.
11. Submit Remedial Action Completion Report to DNREC within 60 days of the completion of the remedial actions required in this Proposed Plan.
12. Request a COCR within 60 days of DNREC'S approval of the Remedial Action Completion Report.

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

The Site use will be used for residential purposes, and the groundwater use will be restricted by recording the environmental covenant. The CMMP will be completed and available for the Site.

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/>

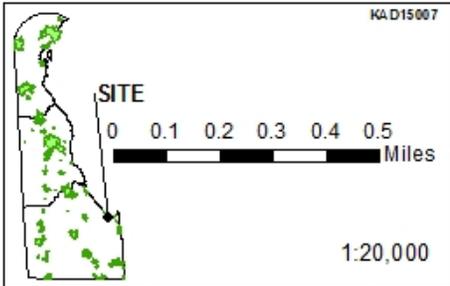
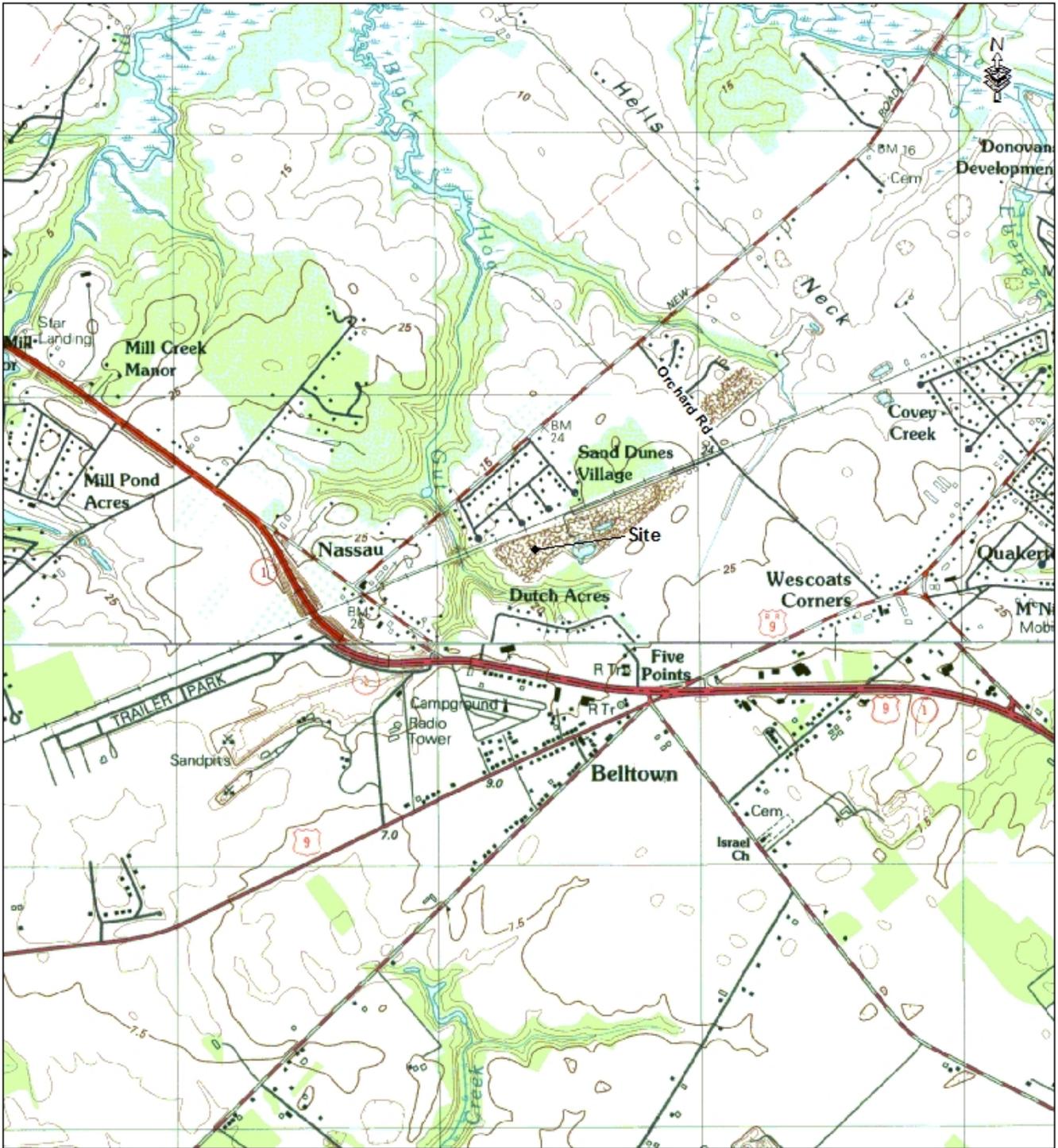
The 20-day public comment period begins on May 31, 2015 and ends at close of business (4:30 pm) on June 22, 2015. Please send written comments to the DNREC office at 391 Lukens Drive, New Castle, DE 19720 to Kathryn Durant, Project Officer or Robert Newsome, Public Information Officer.

Figure 1: Site Location Map

Figure 2: Site Map

Figure 3: Impacted Areas Map

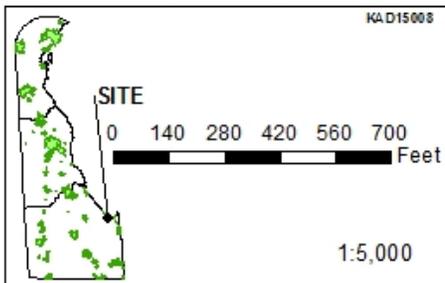
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**FIGURE 1
SITE LOCATION
HUDSON PIT
LEWES, DE (DE-0107)
USGS 7.5 MIN TOPO**

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May 2015

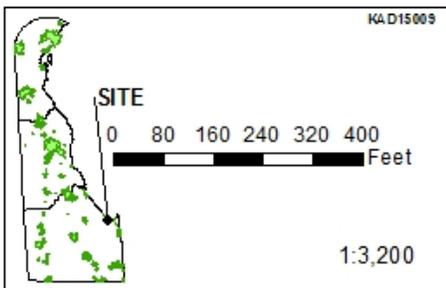


**FIGURE 2
SITE MAP
HUDSON PIT
LEWES, DE (DE-0107)
2012 AERIAL**

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LEGEND	
	Oil Sands Area
	Debris Areas
	Arsenic Hot Spot
	Impacted Sediments



**FIGURE 3
IMPACTED AREAS MAP
HUDSON PIT
LEWES, DE (DE-0107)
2013 AERIAL**

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Glossary of Terms Used in this Proposed Plan

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.
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.
Risk	Likelihood or probability of injury, disease, or death.
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