



PROPOSED PLAN OF REMEDIAL ACTION

Crozier Center Operable Unit #2
Newark, Delaware
DNREC Project No. DE-1428



February 2010

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

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Approval:

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

Approved by:

Marjorie A. Crofts, Acting Director Division of Air & Waste Management
2.22.10
Date



What is the Crozier Center OU-2 Site?

The Crozier Center site is located in Newark, Delaware and consists of eight tax parcels. In order to facilitate a faster cleanup process as well as to meet the transaction schedule, these parcels were divided into three operable units (OUs). This Proposed Plan of Remedial Action (Proposed Plan) covers OU-2, which is bounded by Christiana Road to the south and west, Ogletown Road to the north, and adjacent apartment complexes (Cedarwood Apartments) to the east. OU-2 is approximately 9-acres in size with two commercial office buildings referred to as the Cole House and Fleet Building. The site location and operable unit configuration is presented in Figure 1.

Crozier Center OU-1 comprises the northern section of the property bounded by Prides Crossing Road to the northwest and Ogletown Road to the southeast. OU-1 has already been addressed in a Final Plan of Remedial Action (Final Plan). OU-3 consists of one parcel, which is situated in between two sections of OU-2. OU-3 will be addressed in a proposed plan to be issued at a future date.

Tax Parcel Numbers: 09-023.00-017, 09-023.00-027, and 09-023.00-029

Address: 0, 4041, and 4051 Ogletown Road in Newark, Delaware.

Nearest major intersection: Christiana Road and Delaware Route 4/Ogletown Road

Area: ± 9.39 acres

Surrounding Property: Surrounding land use is primarily commercial and residential

Zoning: Commercial Regional

Site Utilities: Water, sewage, gas, electric utilities are present on site.

Surface water: The White Clay Creek is approximately 1.6 miles northeast of the site.

Topography: The site is generally flat with elevations ranging from 70 to 80 feet (NAVD88).

Groundwater: Groundwater is shallow at the Site and ranged from approximately 4.0 to 10.0 feet below ground surface. Groundwater elevations indicate the groundwater on the eastern side of OU-2 flows predominately towards the west and northwest and has a fairly low horizontal hydraulic gradient (ranging from approximately 0.013 ft/ft to 0.0033 ft/ft). The groundwater on the western portion of OU-2 flows toward the north with a hydraulic gradient of approximately 0.0071 ft/ft.

What happened at the Crozier Center OU-2 Site?

Prior to 1951, OU-2 was used as farmland. Beginning in 1971, the area near the Sabre Wing (commercial structure located on OU-3) and Cole Building was used as a retail shopping center, including a dry cleaner, gasoline filling stations, transmission shop, grocery store, bank, department store, and beauty salon. The dry cleaner was operated from 1971 through 1984.

A gasoline station located in the southwest corner of the property operated from approximately 1961 until 1996.

The Fleet Building was historically used as a gasoline station and as a transmission shop from approximately 1960's to 1995.

In 1989, Maryland Bank purchased the property and used it as commercial office space. In 1994, Maryland Bank became MBNA. In 2005, Bank of America purchased OU-2 from MBNA and shortly afterwards Bank of America shut down operations at this location. OU-1 remained vacant until 2007 when the current owner, Buccini Pollin Group Office Partners XIII Iron Hill LLC (BPG), purchased the property.

What were the environmental problems at the Crozier Center OU-2 Site?

Historical operations of the dry cleaners and the Fleet Building at the site have led to Site wide groundwater contamination with benzene, tetrachloroethene (PCE), trichloroethene (TCE), vinyl chloride, iron and manganese.

However, there are no current environmental risks from groundwater contamination because of the following reasons. First, the groundwater contamination has not migrated off-site and no one in this area is drinking the water. Second, there is currently no risk from vapor intrusion as indicated by the indoor air sampling. The potential future risks are vapor intrusion into the buildings and the migration of the contaminant plume off-site, where it could present a surface water or drinking water risk.

Multiple investigations have taken place on the Crozier Center OU-2 Site. In November 2009, the *Brownfield Remediation Investigation Report* was submitted by BrightFields, Inc. which summarized all previous site reports, site data and evaluated different clean-up options. This report was prepared prior to the realignment of Operable Units and includes information pertinent to current OU-2 and OU-3. The previous sampling events included sampling of soil, groundwater and indoor air. The results indicate iron, manganese, benzene, PCE, TCE, and vinyl chloride are site wide contaminants of concern in groundwater.

Currently groundwater at this site is not used for drinking and groundwater discharges to White Clay Creek, which is approximately 1.6 miles from the site. Because of the distance, the groundwater currently poses no risk to the White Clay Creek.

In addition, the soil vapor intrusion pathway was evaluated to determine if there was a risk from the constituents in groundwater to occupants of the building. Two indoor air quality (IAQ) sampling events were conducted within the Cole House (OU-2) and Sabre Wing (OU-3) on the property. The results for both assessments, at the time they were conducted, were below the US EPA Region 3 Indoor Air Quality screening values.

What clean-up actions have been taken at the Crozier Center OU-2 Site?

A Mobil service station was formerly located in the western corner of OU-2. Petroleum contamination was found during removal of underground storage tanks (USTs) at the service station. A soil vapor extraction system was used to remediate the soil. After the remediation

was completed, DNREC's Tank Management Branch (DNREC-TMB) issued a no further action letter.

In 1993, a soil vapor extraction (SVE) system was installed to remediate elevated concentrations of petroleum hydrocarbons from an underground storage tank (UST) release at the Mobil service station site. In April 1994, the system was upgraded to include an air sparging system (AS). The SVE/AS system was in place from 1993 to 1996. In October 1996, DNREC-TMB issued a No Further Action letter to Mobil Oil Company for Mobil service station site.

In addition, DNREC-TMB issued a January 1993 NFA letter to Mobil after a 500-gallon waste oil UST was removed.

In 1995, one 10,000-gallon gasoline UST and one 550-gallon oil UST were removed from adjacent to the Fleet Building. In a letter to MBNA, DNREC-TMB stated that the minor soil contamination did not pose a risk but that DNREC-TMB must approve a soil management plan prior to any digging, boring, excavation or redevelopment in the area.

What does the owner want to do at the Crozier Center OU-2 Site?

The current owner of the property is planning on maintaining the current structures on the property as commercial facilities; however, a future tenant of the Cole House may be a charter school for kindergarten through eighth grade.

What additional clean-up actions are needed at Crozier Center OU-2 Site?

The proposed remedy for the Site is to establish an environmental covenant restricting the use of site groundwater, digging, drilling, soil disturbance, renovation or demolition of existing structures without DNREC approval. The remedy would also include developing and implementing a Long-Term Stewardship (LTS) plan for periodic monitoring of the groundwater and indoor air.

DNREC proposes the following remedy for the site which needs to be completed before a Certificate of Completion of Remedy (COCR) can be issued:

1. Placing an environmental covenant on the deed of the property which stipulates that
 - a. There shall be no digging, drilling, excavating, grading, constructing, earth moving, or any other land disturbing activities including any repair, renovation or demolition of the existing structures on the Property without the prior written approval of DNREC-SIRB; and
 - b. 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-SIRB.
2. Established a GMZ to prevent groundwater usage at the site.
3. Establishing a Long Term Stewardship Plan (LTS plan) for the site subject to DNREC approval. The LTS plan will include a groundwater and vapor intrusion monitoring plan to address potential offsite migration of the plume and potential of vapor intrusion. The LTS plan will address any additional remedial actions that may be necessary if monitoring shows off-site

Glossary of Terms Used in this Proposed Plan

Brownfield	Property that is vacant or underutilized because of the perception or presence of an environmental problem.
Brownfield Investigation	A comprehensive study of environmental media at a certified brownfield site to determine the nature and extent of contamination present
Certified Brownfield	A brownfield that DNREC has determined is eligible for partial funding through the Delaware Brownfields Program.
Certificate 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.
Final Plan of Remedial Action	DNREC's proposal for cleaning up a hazardous site after it has been reviewed by the public and finalized.
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 provides the regulatory framework for the Department's site cleanup programs.
Operable Unit	The cleanup of a site can be divided into a number of operable units, depending on the complexity of the problems associated with a site. Operable units may address geographical portions of a site, specific site problems, or initial phases of an action, or may consist of any set of actions performed over time or any actions that are concurrent but located in different parts of a site.
Proposed Plan of Remedial Action	A plan for cleaning up a hazardous site submitted by DNREC and subject to public comments.
US EPA	United States Environmental Protection Agency
Restricted Use	Commercial or Industrial setting
SIRB	Site Investigation Restoration Branch of DNREC, which oversees cleanup of sites that were contaminated as a result of past use, from dry cleaners to chemical companies.
URS	DNREC Uniform Risk-Based Remediation Standards

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.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/sitefiles.asp>.

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.

What are the long term plans for the Crozier Center OU-2 Site after the cleanup?

The long term plan for the site is to implement the requirements of the LTS plan including any additional remedy necessary as determined by DNREC based on the monitoring results.

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

The complete file on the site including the Brownfield Report is available at the DNREC office, 391 Lukens Drive in New Castle. Most documents are also found on:
<http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/>

The 20-day public comment period begins on March 1, 2010 and ends at close of business (4:30 pm) on March 22, 2010. Please send written comments to the DNREC office (391 Lukens Drive, New Castle 19720) or call Rick Galloway, Project Manager, at 302-395-2600.

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Legend

- OU1
- OU2
- OU3
- Tax Parcels



BrightFields, Inc.
Environmental Evaluation
Investigation, and Remediation

801 Industrial Street, Suite 1
Wilmington, Delaware 19801

302-656-9600
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Operable Unit Map
400 Christina Road (Crozier Center)
Newark, Delaware

	By	Date	Scale:	File Name:
Drawn	MPM	1/27/10	1:1800	OU3 Map.mxd
Checked	JPR	1/27/10	Fig. No.	Figure 1
Project #	1106.56.21			

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