FINAL PLAN OF REMEDIAL ACTION

FORMER COMMONS BOULEVARD SUNOCO SITE

7 East Commons Boulevard — *April 2014*
New Castle, Delaware — *DNREC Project No. DE-1514*

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 Former Commons Boulevard Sunoco Site.

DNREC issued public notice of the Proposed Plan of Remedial Action (Proposed Plan) for the Former Commons Boulevard Sunoco Site on April 6, 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

April 29, 2014
Date

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PROPOSED PLAN OF REMEDIAL ACTION

Former Commons Boulevard Sunoco Site
New Castle, Delaware
DNREC Project No. DE-1514

April 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

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PROPOSED PLAN OF REMEDIAL ACTION

Former Commons Boulevard Sunoco Site
New Castle, Delaware
DNREC Project No. DE-1514

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

Approved by:

Timothy Ratsep, Environmental Program Administrator
Site Investigation & Restoration Section

April 2, 2014
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 Former Commons Boulevard Sunoco Site?

The Site is a Certified Brownfield (DE-1514) located at 7 East Commons Boulevard in New Castle, Delaware and consists of one tax parcel (10-013.00-019), totaling approximately 2.57 acres (Figure 1). The nearest intersection to the Site is East Commons Boulevard and Basin Road (Route 141). The Site is currently being redeveloped into a Wawa gas station/convenience store and is zoned I-UDC-Industrial However until recently, it consisted of an office/warehouse building, which was demolished in Fall 2012 (Figure 2).

What happened at the Former Commons Boulevard Sunoco Site?

The Site was formerly used as an automobile refueling station from the 1960s to approximately 1980. It was then utilized as an industrial warehouse for parts storage and distribution with a small machine shop until 2011. Several underground storage tanks (USTs), containing gasoline and possibly waste oil and heating oil, were in use at the Site until approximately 1980.

As a result of the historic refueling station operation, a petroleum release occurred and impacted the soil and groundwater beneath the Site. Several investigations and a corrective action were conducted with the oversight of the DNREC-Tank Management Section (DNREC-TMS). DNREC-TMS issued a No Further Action letter in May 1997. All known USTs are removed from the Site at present.

What is the environmental problem at the Former Commons Boulevard Sunoco Site?

A Brownfield Investigation performed in 2012 at the Site found benzene, iron, and manganese in the shallow groundwater exceeding DNREC standards. Benzene appears to be limited to one monitoring well near the historic refueling station, while iron and manganese are observed in monitoring wells throughout the Site. A risk assessment showed that exposure to groundwater (i.e., ingestion) at the Site under residential and non-residential use scenarios poses an unacceptable risk above DNREC-SIRS's standards with benzene being the primary risk-driver.

However, the vapor intrusion risk of subsurface vapors from groundwater into the future on-site building did not exceed DNREC-SIRS's risk standard.

Aluminum and iron were found in the soil at concentrations exceeding DNREC screening standards, however a risk assessment showed that exposure to soil at the Site under a residential or non-residential use scenario does not pose a risk above DNREC's acceptable risk standard.

What clean-up actions have been taken at the Former Commons Boulevard Sunoco Site?

In 1996, approximately 660 tons of petroleum contaminated soil was removed from the Site in the area of the former fuel dispenser island and the former gasoline USTs (used for the automobile refueling station operation) during a DNREC-TMS corrective action. Oxygen release compound (ORC) chemicals were added to the excavation pit to help breakdown the petroleum contamination, and the excavation pit was backfilled with clean gravel and soil. In addition, approximately 482 tons of minimally impacted petroleum contaminated soil was removed from the Site in the vicinity of the former gasoline USTs during re-development activities in January 2014.

In September 2013, groundwater dewatering was performed at the Site in connection with the installation of a new underground storage tank system. Due to the BTEX contaminated groundwater identified during the Brownfield investigation, granular activated carbon (GAC) filtration was required to remove the contaminants prior to surface discharge to a nearby drainage swale. Water samples were collected to determine the effectiveness of the filtration. Groundwater dewatering activities were envisioned as serving two purposes; (1) to lower the groundwater to permit the installation of the USTs, and (2) to function as a "pump and treat" system with the goal of reducing the residual BTEX concentrations previously identified in groundwater beneath the Site. As such, use of the GAC filtration system served as an interim remedial action for the Site.

What does the owner want to do at the Former Commons Boulevard Sunoco Site?

7 Commons LLC is redeveloping the Site into a WaWa gas station/convenience store.

What additional clean-up actions are needed at the Former Commons Boulevard Sunoco 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. Development and implementation of a DNREC-approved Long-Term Stewardship (LTS) Plan. The LTS Plan will include a groundwater monitoring plan which will detail the groundwater monitoring network and schedule to be followed in order to monitor the attenuation of the groundwater COCs. The plan will include criteria that will show that the interim action was effective and that contaminants are degrading. If the interim

action is not effective, then an active remedy to treat groundwater contamination will be required;

2. 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.] 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;

   [c.] 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

   [d.] Compliance with Contaminated Materials Management Plan. Perform all work required by the Contaminated Materials Management Plan ("CMMP"), as approved by DNREC.

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

The institutional controls outlined by the environmental covenant will specify the future land use and intrusive action restrictions for the Site. The DNREC approved Long-Term Stewardship Plan and CMMP will document the requirements.

DNREC plans to issue a Certificate of Completion of Remedy for the Site after the implementation of the LTS Plan and the uniform environmental covenant on 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 April 6, 2014 and ends at close of business (4:30 pm) on April 28, 2014. Please send written comments to the DNREC office at 391 Lukens Drive, New Castle, DE 19720 to Stephanie Scholl, Project Officer or Robert Newsome, Public Information Officer.

Figure 1: Site Location Sketch
Figure 2: Site Features Sketch

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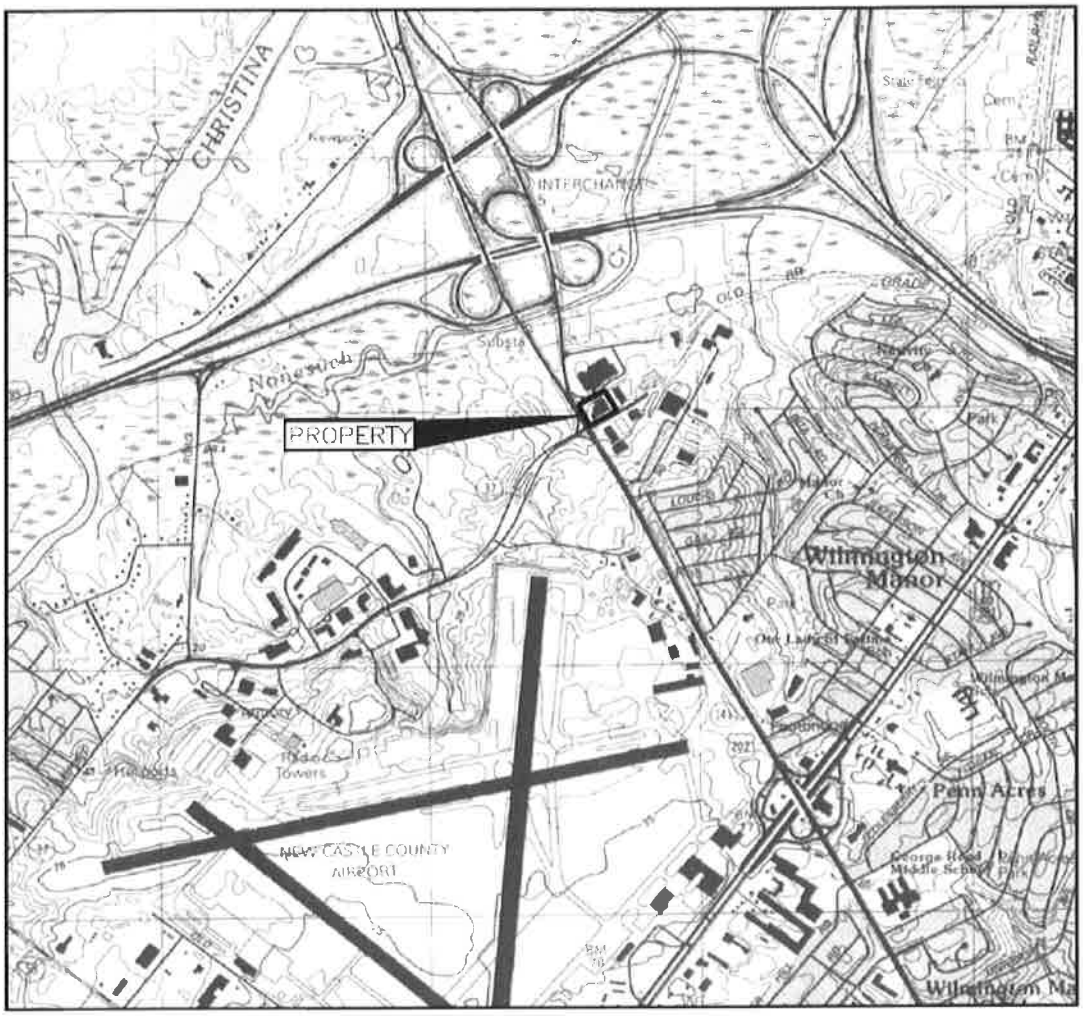
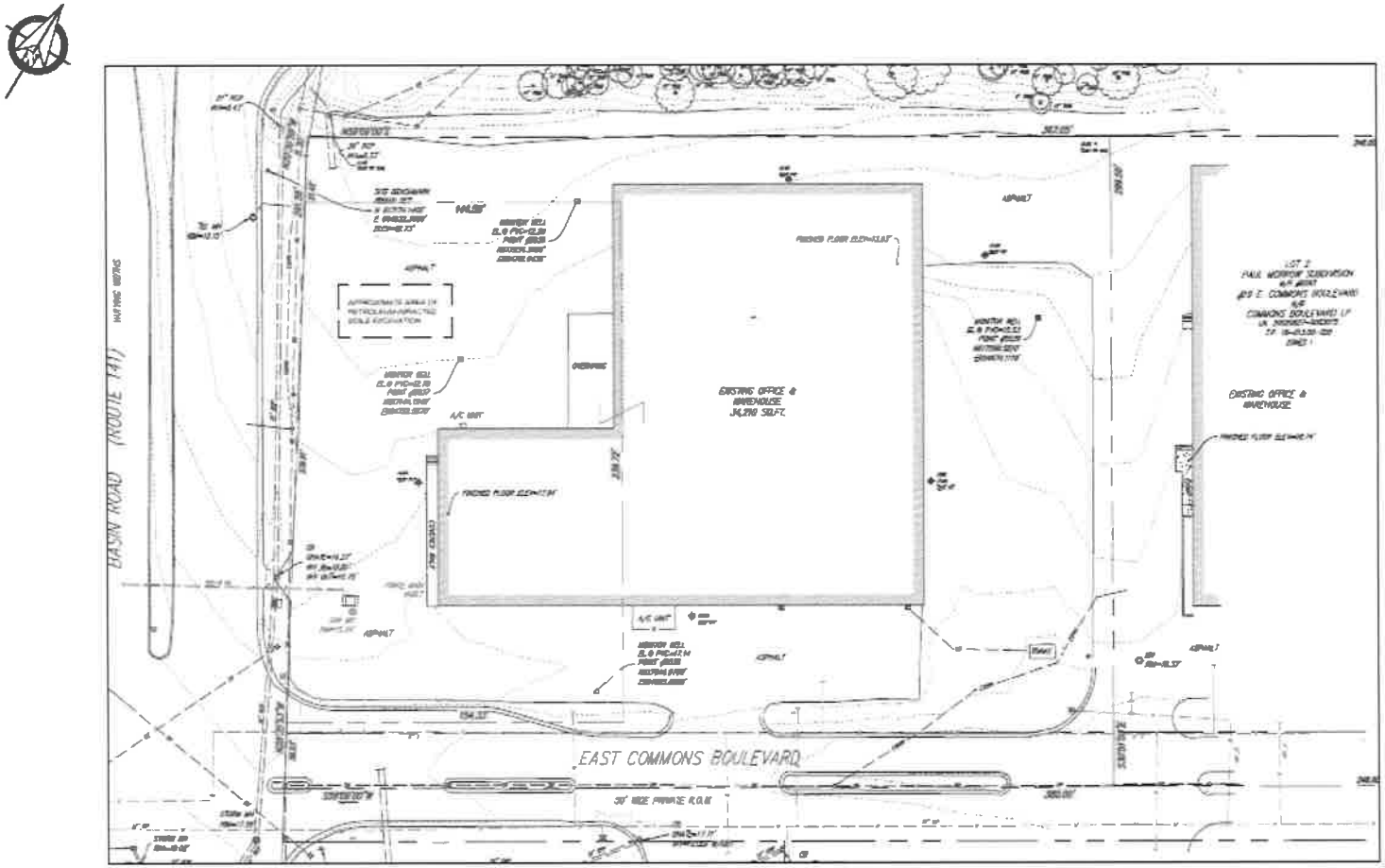


NOTE:
THIS LOCATION SKETCH IS ADAPTED FROM THE U.S.G.S. TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, FOR WILMINGTON SOUTH, DELAWARE 1993.

DATE: 16 NOVEMBER 2011	SITE LOCATION SKETCH	DESIGNED BY: MFP	DUFFIELD ASSOCIATES Consultants to the Geosciences
SCALE: 1" = 2000'	FORMER COMMONS BOULEVARD	DRAWN BY: MFP	4601 LIMESTONE ROAD WILMINGTON, DE 19808-1332 TEL. (302)239-6634 FAX (302)239-8485
PROJECT NO. 9126.EF	SUNOCO SITE / DE-1514	CHECKED BY:	OFFICES IN DELAWARE, MARYLAND PENNSYLVANIA AND NEW JERSEY
SHEET: FIGURE 1	NEW CASTLE ~ NEW CASTLE COUNTY ~ DELAWARE	FILE: A9126EF-Loc-R0	E-MAIL: DUFFIELD@DUFFIELD.COM

Figure 1



NOTE: THIS SITE FEATURES SKETCH WAS ADAPTED FROM A TRANSITION ENGINEERING SURVEYING, LLC SURVEY OF THE PROPERTY DATED JUNE 28, 2011

DUFFIELD ASSOCIATES

DESIGNED BY:	MFP
DRAWN BY:	MFP
CHECKED BY:	
FILE:	B-9126EC-MW1.OC

SITE FEATURES SKETCH

FORMER COMMONS BOULEVARD
SUNOCO SITE / DE-1514

NEW CASTLE-NEW CASTLE COUNTY-DELAWARE

DATE:	16 NOVEMBER 2011
SCALE:	1"=50'
PROJECT NO.	9126.EF
SHEET:	FIGURE 2

Figure 2

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.
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.
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.
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.
Preliminary Risk Assessment	A quantitative evaluation of only the most obvious and likely risks at a site
Risk	Likelihood or probability of injury, disease, or death.
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