

# FINAL PLAN OF REMEDIAL ACTION



## Growmark FS Milford

*Growmark FS Milford  
Milford, Delaware*

*July 29, 2011  
DNREC Project No. DE-1326*

This Final Plan of Remedial Action (Final Plan) presents the Department of Natural Resources and Environmental Control's (DNREC's) requirements to address environmental contamination at the Growmark FS Milford site (Site).

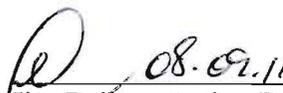
DNREC issued public notice of the Proposed Plan of Remedial Action (Proposed Plan) for the Site on June 26, 2011 and opened a 20-day public comment period. The Proposed Plan is attached. There were no comments or questions from the public. Therefore, the Proposed Plan is adopted as the Final Plan.

Final Plan will consist of the following requirements:

- The Site owner will record an environmental covenant consistent with Delaware's Uniform Environmental Covenants Act, UECA (Title 7, Del. Code Chapter 79, Subtitle II). The environmental covenant will reference the Groundwater management Zone (GMZ).
- DNREC will establish a GMZ to ensure that no groundwater wells shall be installed and no groundwater shall be withdrawn from any well, on the Properties without the prior written approval from DNREC. If contaminants in the groundwater attenuate and no longer pose a risk to human health, DNREC may remove the GMZ from the Site.

### **Approval:**

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

  
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Jim Poling, Acting Program Manager II  
Site Investigation and Restoration Section



## **PROPOSED PLAN OF REMEDIAL ACTION**

Growmark FS Milford  
308 and 508 NE Front Street  
Milford, Delaware  
DNREC Project No. DE-1326



**June 2011**

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

Growmark FS Milford  
308 and 508 NE Front Street  
Milford, Delaware  
DNREC Project No. DE-1326



**Approval:**

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

Approved by:

Marjorie A. Crofts, Director Division of Waste and Hazardous Substances
6.21.11
Date



### **What is the Growmark FS Milford Site?**

The Growmark FS Milford site is located at 308 and 508 NE Front Street in Milford, Delaware and consists of two (2) tax parcels, which total approximately nine (9) acres (Figure 1). NE Front Street divides the two (2) parcels. One (1) of the parcels (Site 3) is located north of NE Front Street and one parcel (Site 4) is located south of NE Front Street (Figure 2).

Site 3 is a mostly asphalt paved area and includes a seed warehouse and a former shop building. The buildings on Site 4 in Figure 2 were demolished in 2008. Site 4 is currently a grass and gravel covered vacant lot located adjacent to the Mispillion River.

The sites are bordered by private residences to the northwest, vacant land to the north and northeast, a boat ramp and gasoline station/convenience store to the southwest, the Mispillion River to the South, a river walk recreational area to the southwest and a commercial shopping center to the west.

**Tax Parcel Numbers:** 5-16-183.10-04-23.00, 5-16-183.10-04-70.00, 5-16-183.10-04-27.00 and 5-16-183.10-04-28.00  
**Address:** 308 and 508 NE Front Street in Milford, Delaware.  
**Nearest major intersection:** NE 4<sup>th</sup> Street and NE Front Street  
**Area:** ± 8.97 acres  
**Surrounding Property:** Surrounding land use is commercial/residential  
**Zoning:** Institutional/ Offices  
**Site Utilities:** Water, sewage, gas, electric utilities  
**Surface water:** Mispillion River, is located immediately south of the site.  
**Topography:** Site slopes from north to south with elevations ranging from 4.5 to 0.5 feet (NAVD83)  
**Groundwater:** Groundwater flows to the southeast toward the Mispillion River.

### **What happened at the Growmark FS Milford Site?**

The Site operations included the storage, blending and distribution of fertilizer and an oil company distribution center. The release likely occurred from these historic operations as a result of historic spills.

### **What were the environmental problems at the Growmark FS Milford Site?**

Soil and soil gas samples taken at the Site did not exceeded DNREC residential standards. Groundwater at the Site is impacted with the volatile organic compounds (VOCs)-methyl tertiary butyl ether (MTBE), ethylbenzene, and xylenes, Semi-Volatile Organic Compound (SVOCs)- naphthalene and 2-methylnaphthalene, Triazine herbicides (alachlor and atrazine), and nitrate nitrogen and the concentrations are above drinking water standards. Groundwater from the Site would present a human health risk if it is ingested. However, groundwater is not being used at the site. Quarterly groundwater

sampling, surface water sampling and mass loading calculations indicated that groundwater from the site is not impacting the Mispillion River.

Numerous investigations were conducted at the Site including: 2002 WIK Associates, Inc. Phase I; 2002 Harding ESE, Inc. Phase II; 2002 MACTEC Limited Groundwater Investigation; 2003 BT2, Inc. Phase II; 2008 MACTEC Quarterly Groundwater Monitoring; 2009 MACTEC Addendum for Sub-Slab Soil Vapor Sampling. All the reports are summarized in the 2010 Remedial Investigation (RI) Report submitted by PARS Environmental, Inc.

The RI Report included sampling of the soil, groundwater, soil gas at the Site, and surface water and sediment from the Mispillion River. Quarterly groundwater sampling was conducted to determine if groundwater contamination from the Site was impacting the river. Sub-slab soil gas sampling was conducted and only one (1) sample showed an exceedence of residential values. The subsequent semi-annual sub-slab soil gas sampling could not re-confirm the exceedence in the previous single soil gas sample. Therefore, the sub-slab sampling demonstrated that there is no risk from soil gas to indoor air. The quarterly groundwater sampling indicated that the contaminated groundwater was not migrating offsite to impact the river.

### **What does the owner want to do at the Growmark FS Milford Site?**

The current owner of the property is using the Site 3 area as a fertilizer storage and distribution center. The owner is not currently using the Site 4 area and has no plans for redevelopment.

### **What clean-up actions are needed at Growmark FS Milford Site?**

The proposed remedy will be to restrict groundwater use at the site.

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. Record an environmental covenant consistent with Delaware's Uniform Environmental Covenants Act, UECA (Title 7, Del. Code Chapter 79, Subtitle II). The environmental covenant will reference the Groundwater Management Zone (GMZ) to be established at the Site.
2. DNREC will establish a GMZ to ensure that no groundwater wells shall be installed and no groundwater shall be withdrawn from any well, on the Properties without the prior written approval from DNREC. If contaminants in the groundwater attenuate and no longer pose a risk to human health, DNREC may remove the GMZ from the Site.

### **What are the long term plans for the Growmark FS Milford after the cleanup?**

The owner wants the Site to be available for redevelopment including residential development, however, there are no immediate plans for redevelopment.

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

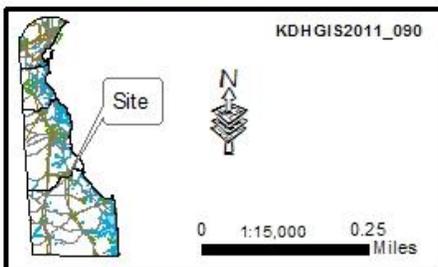
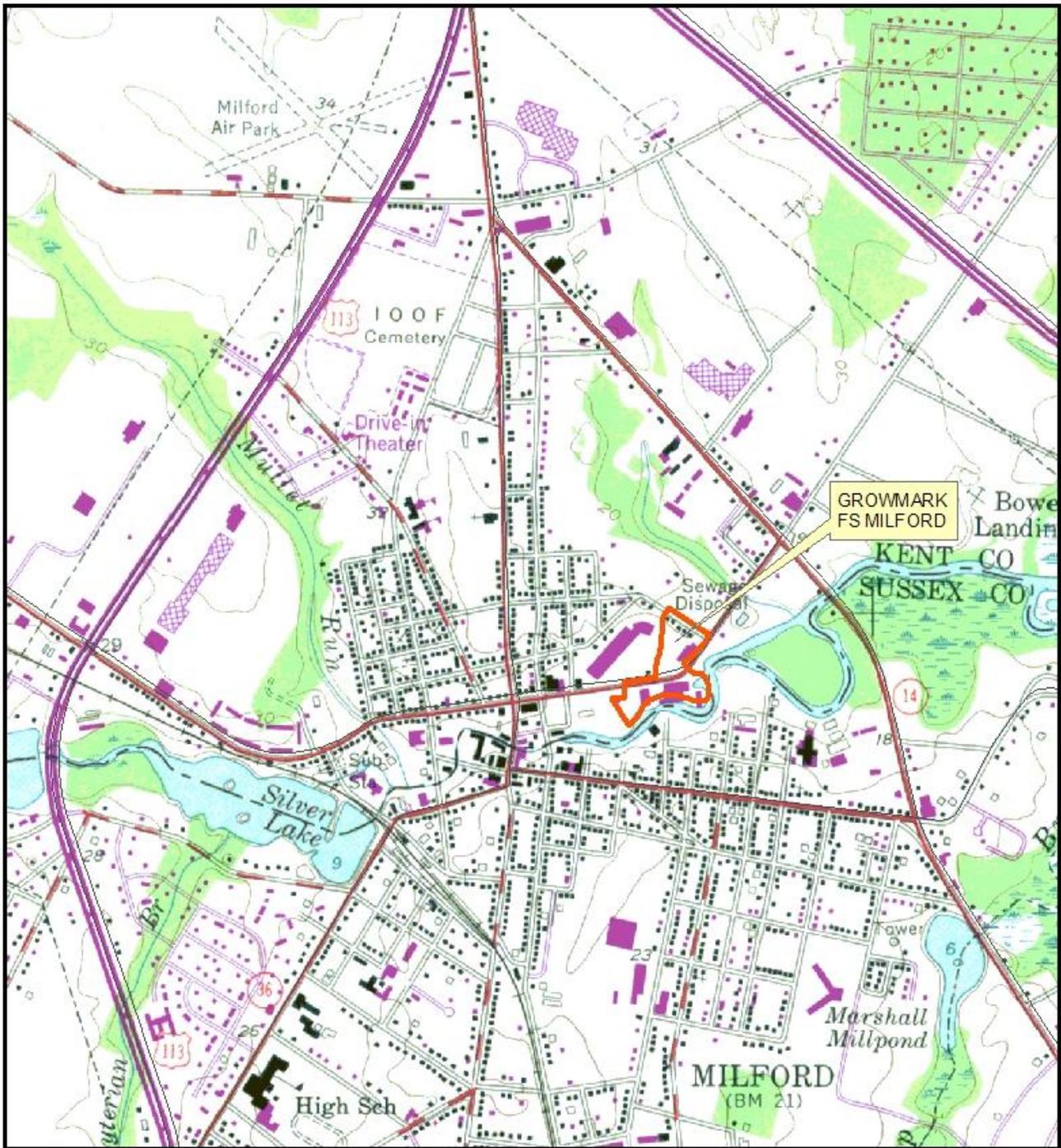
The complete file on the site including the Remedial Investigation Report and the various reports are available at the DNREC office, 391 Lukens Drive in New Castle. Most documents are also found on:

<http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/>

The 20-day public comment period begins on June 26, 2011 and ends at close of business (4:30 pm) on July 18, 2011. Please send written comments to the DNREC office (391 Lukens Drive, New Castle 19720) or call Rick Galloway, Project Manager, at: 302-395-2600.

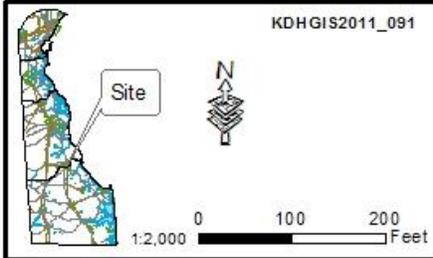
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## Figures



**FIGURE 1  
SITE LOCATION  
GROWMARK FS MILFORD  
MILFORD, DELAWARE**

This map is provided by the DNREC-SIRB solely for display and reference purposes and is subject to change without notice. DNREC-SIRB will not be held responsible for the assumed accuracy contained in the map or for use other than its intended purposes. March 2011



**FIGURE 2**  
**2007 AERIAL VIEW OF**  
**GROWMARK FS**  
**MILFORD, DELAWARE**

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 March 2011

## Glossary of Terms Used in this Proposed Plan

<b>Brownfield</b>	Property that is vacant or underutilized because of the perception or presence of an environmental problem.
<b>Brownfield Investigation</b>	A comprehensive study of environmental media at a certified brownfield site to determine the nature and extent of contamination present
<b>Certified Brownfield</b>	A brownfield that DNREC has determined is eligible for partial funding through the Delaware Brownfields Program.
<b>Certificate of Completion of Remedy (COCR)</b>	A formal determination by the Secretary of DNREC that remedial activities required by the Final Plan of Remedial Action have been completed.
<b>Final Plan of Remedial Action</b>	DNREC's proposal for cleaning up a hazardous site after it has been reviewed by the public and finalized.
<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 provides the regulatory framework for the Department's site cleanup programs.
<b>Operable Unit</b>	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.
<b>Proposed Plan of Remedial Action</b>	A plan for cleaning up a hazardous site submitted by DNREC and subject to public comments.
<b>US EPA</b>	United States Environmental Protection Agency
<b>Restricted Use</b>	Commercial or Industrial setting
<b>SIRB</b>	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.

## **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.

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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/>

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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.

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