



## **PROPOSED PLAN OF REMEDIAL ACTION**

Laurel Grain 2 Site  
Laurel, Delaware  
DNREC Project No. DE-1625



October 2016

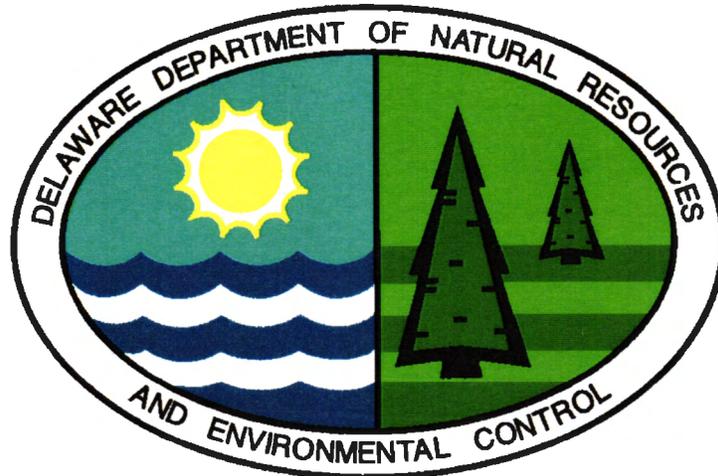
Delaware Department of Natural Resources and Environmental Control  
Division of Waste and Hazardous Substances  
Site Investigation & Restoration Section  
391 Lukens Drive  
New Castle, Delaware 19720

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**Approval:**

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

Approved by:

Timothy Ratsep, Environmental Program Administrator  
Site Investigation & Restoration Section

September 29, 2016

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 Laurel Grain 2 Site?**

The Laurel Grain 2 Site (Site) is located approximately one half-mile south of the city limits of Laurel, DE at the southwest corner of the intersection of Bi-State Blvd and Saint George Rd., and occupies approximately 17.84 acres in total size. The Site consists of Sussex County tax parcel 3-32 3.00 56.00 and is zoned “Light Industrial” (Figures 1, 2, and 3).

The majority of the Site is currently vacant, but was used historically for agricultural purposes. In the central area of the Site is a large concrete structure that was utilized during the historic use of the property as a grain processing and production facility. South of the concrete structure is seven (7) metal grain silos (to be removed during redevelopment) used to store grains prior to transport. A railroad track runs along the western Site boundary with a small off shot on the property, and was formally used to aid in grain distribution. The remaining portion of the Site is covered with vegetation or gravel in areas used as roads.

## **What happened at the Laurel Grain 2 Site?**

Historically the Site buildings had been utilized by Laurel Grain Company for the storage and processing of grain for agricultural purposes. Additionally, Helena Chemical Company was a tenant at the Site from 1985-1995 and reportedly used the Site for the sale of agricultural pesticides and fertilizers. The northern and southern portions of the Site have been used for agricultural purposes.

## **What is the environmental problem at the Laurel Grain 2 Site?**

A Brownfield Investigation (BFI) was performed at the Site from December, 2015 through February, 2016 and found contaminants of potential concern (COPCs) that were above DNREC SIRS human health screening levels. The COPCs were as follows:

### **Shallow Soil**

- **Semi Volatile Organic Compounds (SVOCs):** Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene

- Poly Chlorinated Biphenyls (PCBs): Total PCBs
- Inorganics: Cyanide, Thallium
- Total Petroleum Hydrocarbons-Diesel Range Organics

#### Subsurface Soil

- SVOCs: Benzo(a)pyrene, Naphthalene
- Inorganics: Thallium
- TPH-DRO

#### Groundwater

- Volatile Organic Compounds VOCs: Benzene, Ethylbenzene
- SVOCs: 1,1'-Biphenyl, Dibenzofuran, 2 – Methylnaphthalene, Naphthalene
- Total Inorganics: Aluminum, Arsenic, Barium, Cobalt, Copper, Iron, Lead, and Manganese
- Dissolved Inorganics: Barium, Cobalt, Copper, Iron, Manganese and Selenium.
- TPH-DRO
- Nitrates

A human health risk assessment was performed based upon the sampling results in the BFI for soil and groundwater. The risk assessment determined that potential risk may exist for groundwater contact for future residents or indoor commercial workers at the Site. Due to these potential risks, Site groundwater cannot be used at the Site without DNRECs prior written approval. In order to eliminate the potential unacceptable risks to a future resident, the use of the Site will be restricted to non-residential purposes by recording an Environmental Covenant for the tax parcel with the Sussex County Recorder of Deeds. Further, the groundwater used in the production process will need to meet State of Delaware Drinking water standards (Maximum Contamination Level [MCL]). Site workers who come into contact with the production water will comply with a DNREC approved LTS Plan. All potable water for the Site will be provided by a well installed into the deeper confined aquifer and will also be required to meet DNRECs prior written approval. Additionally, a DNREC approved Long Term Stewardship Plan will be required to monitor groundwater conditions at the Site, as well as, provide for a Corrective Action Plan if the MCLs, EPA Health Levels, or the DNREC-SIRS Screening Levels are exceeded for the COCs in the groundwater monitoring of the production well.

#### **What clean-up actions have been taken at the Laurel Grain 2 Site?**

An asbestos survey was completed at the Site in February 2015 and a follow up survey was completed in December 2015, to evaluate the presence of possible asbestos containing materials (ACM) as defined by the Environmental Protection Agency's (EPA) standards. Based on the results of the survey it has been determined that ACM is present at the Site ranging from 3% to

30% chrysotile. Asbestos abatement was completed prior to the start of Site deconstruction under contract with the Brownfield Developer.

During the Brownfield Investigation the, 5,000 – Gallon AST (AST Facility ID#: 8-000368) was removed as an approved interim action. An NFA was issued from the removal by DNREC –TMS dated Mach 4, 2016.

### **What does the owner want to do at the Laurel Grain 2 Site?**

The current owners, Proximity Malt, LLC, intend to redevelop the Site to produce a variety of malted grains that will be distributed to breweries for use in the beer making process.

### **What additional clean-up actions are needed at the Laurel Grain 2 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 approved Long Term Stewardship (LTS) Plan.
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 Sussex County Recorder of Deeds within 60 days of the issuance of the Long Term Stewardship Plan. 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 the Long Term Stewardship Plan. All work required by the Long Term Stewardship Plan must be performed to DNREC’s satisfaction in accordance with the Plan; and
  - [d.] 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 Long-Term Stewardship Plan shall be submitted to DNREC for approval within 60 days of the issuance of the Final Plan of Remedial Action.. 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). 2) A Corrective Action Plan to be implemented if monitoring results exceed the applicable MCLs, EPA Health Levels, or the DNREC-SIRS Screening Levels for the COCs monitored in the production well under the LTS Plan. The Corrective Action Plan specified in the LTS will also include a treatment system if deemed necessary by the guidelines stipulated in the LTS Plan, in the event the production well monitoring indicates unacceptable groundwater conditions for the proposed use.
6. The LTS Plan must be implemented within 60 days of its approval by DNREC.
7. A request for a Certification of Completion of Remedy (COCR) must be submitted to DNREC within 60 days of recording of the UECA.

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

The Site will operate as a malt production facility. Grains will be put through a malting process that will then be sold to breweries and used in the beer making process.

### **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 October 2, 2016 and ends at close of business (4:30 pm) on October 24, 2016. Please send written comments to the DNREC office at 391 Lukens Drive, New Castle, DE 19720 to Kristen Thornton, Project Officer.

Figure 1: Regional Topo Map

Figure 2: Site Vicinity Map

Figure 3: Site Base Map

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Figure 2

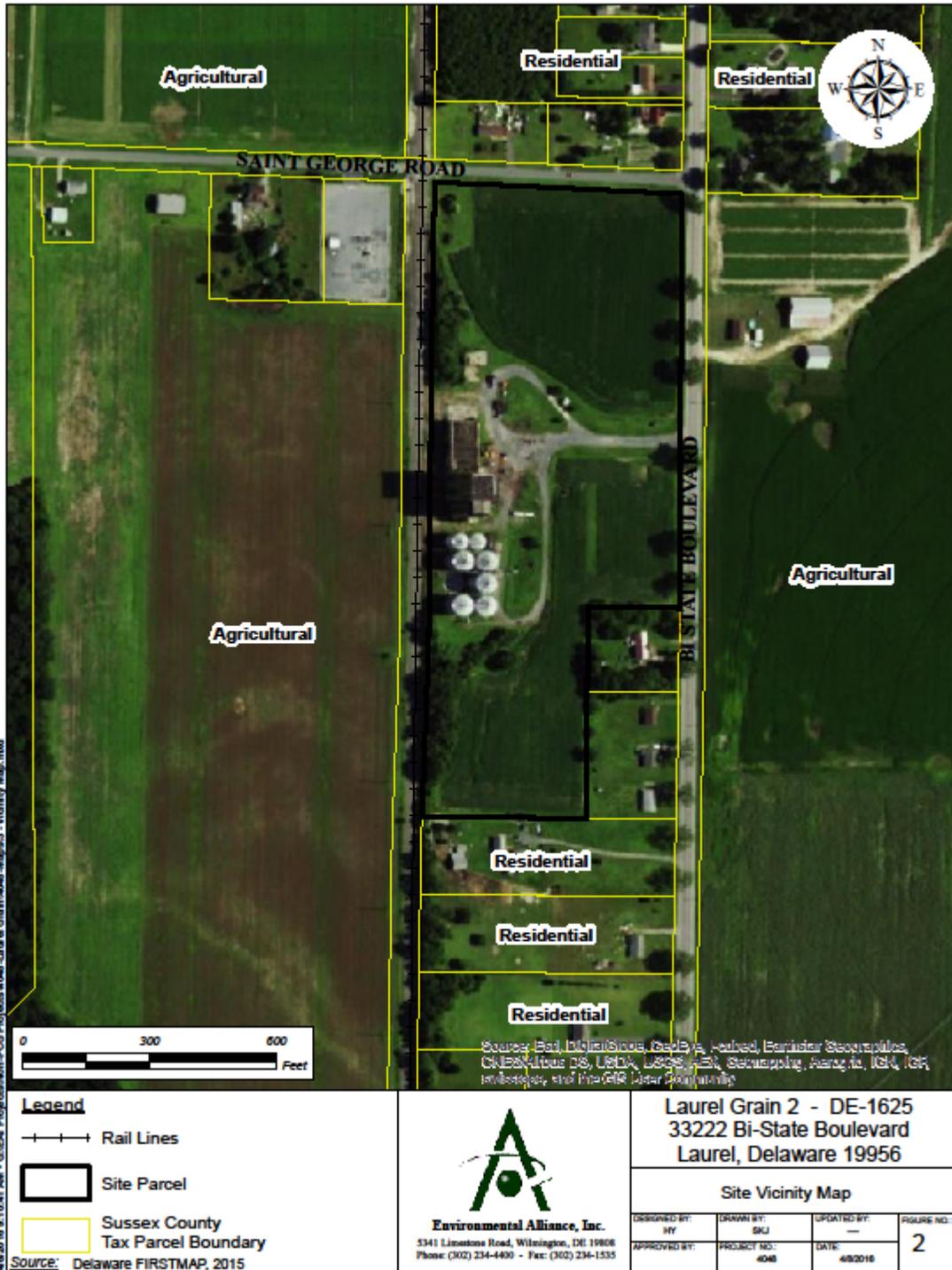


Figure 3



## Glossary of Terms Used in this Proposed Plan

<b>Brownfield Development Agreement (BDA)</b>	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.
<b>Brownfield Investigation (BFI)</b>	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.
<b>Certified Brownfield</b>	A Brownfield that DNREC has determined is eligible for partial funding through the Delaware Brownfields Program
<b>Certification 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>Contaminant of Potential Concern (COPC)</b>	Potentially harmful substances at concentrations above acceptable levels.
<b>Contaminated Materials Management Plan</b>	A written plan specifying how potentially contaminated material at a Site will be sampled, evaluated, staged, transported and disposed of properly.
<b>Exposure</b>	Contact with a substance through inhalation, ingestion, or direct contact with the skin. Exposure may be short term (acute) or long term (chronic).
<b>Final Plan of Remedial Action</b>	DNREC's adopted plan for cleaning up a hazardous site.
<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 requires cleanup with oversight of the Department.
<b>Human Health Risk Assessment (HHRA)</b>	An assessment done to characterize the potential human health risk associated with exposure* to site related chemicals.
<b>Poly chlorinated biphenyls (PCBs)</b>	A synthetic, carcinogenic chemical formerly used in a wide variety of industrial applications but banned from most uses by the US EPA in 1979.
<b>Risk</b>	Likelihood or probability of injury, disease, or death.
<b>Restricted Use</b>	Commercial or Industrial setting
<b>SIRS</b>	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