

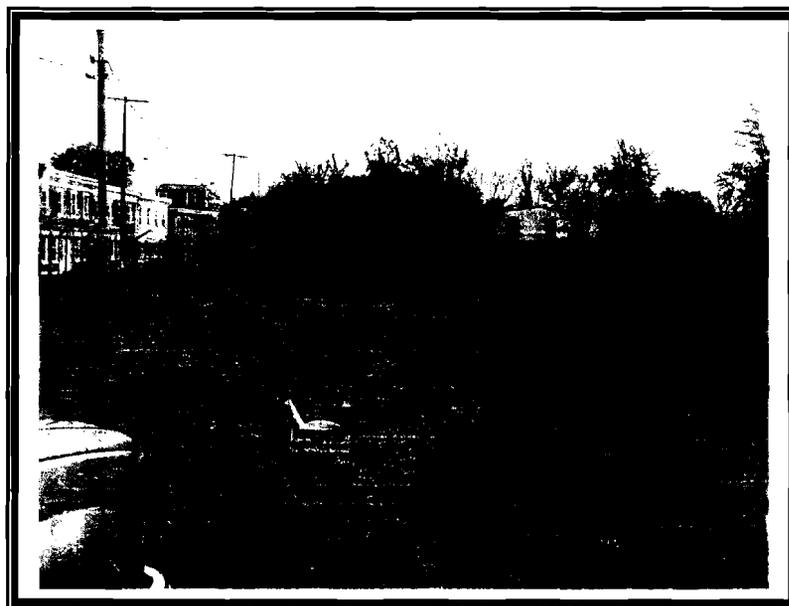
# REVISED PROPOSED PLAN OF REMEDIAL ACTION

Wilmington Rolling Mill Site  
Wilmington, Delaware  
DNREC Project No. DE-1198

SCANNED

FEB 04 2004

File# 1198 B8



January 2008

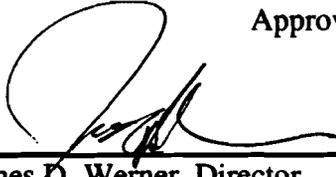
Delaware Department of Natural Resources and Environmental Control  
Site Investigation & Restoration Branch



391 Lukens Drive  
New Castle, Delaware 19720

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	Approved by:
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James D. Werner, Director Division of Air & Waste Management	
1 Feb 2008	
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Date	



**What is the Wilmington Rolling Mill Site?** This Brownfield Certified Site is located at 1000 – 1020 Church Street between 10<sup>th</sup> Street and 11<sup>th</sup> Street just north of the 7<sup>th</sup> Street peninsula on the west side of the Brandywine Creek in Wilmington, Delaware. A fence surrounds the Site on three sides but not along the Brandywine Creek. The City of Wilmington has a 30-ft to 50-ft wide Right of Way along the Brandywine Creek which provides city employee's access to the city sewer pump station. An empty field is located to the north of the Site, commercial businesses are to the south and residences are located across Church Street from the Site. Figure 1 shows the location of the Site. Figure 2 shows the current configuration of the Site.

The Site has one vacant brick building. The Site is currently being used to store steel I-beams by the current owner, RC Fabricators, Inc. The owner is planning to build a commercial office building with a sidewalks and a parking lot on the Site.

**Tax Parcel Numbers:** 26-036.3-0706 and 26-036.3-0707

**Nearest major intersection:** Church and 10<sup>th</sup> Street

**Area:** 3 acres

**Surrounding Property:** Surrounding land use is commercial/residential

**Site Utilities:** water and sewer service are available nearby and a storm sewer runs east-west across the site

**Topography:** Slopes to the east

**Groundwater:** Columbia aquifer, ground water flow is to the east toward Brandywine Creek

**What happened at the Site?** The Site was developed around 1876 to manufacture steel plates. The Site also contained a rail line and a coal yard soon after 1884. From approximately 1901 until 1927, the majority of the Site was operated as a coal yard. From 1929 to 1971, the Site was operated as a variety of companies including a tool company, an ice house and an equipment supply company. The Site remained vacant from 1971 until December 2005 when the current owner purchased the Site.

**What is the environmental problem at the Site?**

Both the steel manufacturing and historic filling of the Site caused elevated levels of arsenic and benzo (a) pyrene in the Site soil.

**September 2000, Brownfield Preliminary Assessment II (BPA)-** The investigation reported elevated concentrations of arsenic and poly-aromatic hydrocarbons in the surface soil (0 to 2 feet in depth). Elevated poly-chlorinated biphenyls (PCBs) were detected in the sediment along Brandywine Creek.

**October 2003, Remedial Investigation-** In all samples of the surface soil (0 to 2 feet in depth) and all of the subsurface soil (deeper than 2 feet), the metals (aluminum, iron and manganese) and dibenz (a,h) anthracene were detected above the DNREC-SIRB residential standard. Manganese and arsenic

were the only metals detected above the DNREC-SIRB commercial standard. However, manganese was within the background range and as a result is not considered to be a contaminant of concern (COC) for the Site. Arsenic was above the background standard and also above the commercial standard. Arsenic was determined to be a COC. Benzo (a) pyrene was detected in surface soil above the commercial standard and was considered a COC.

Iron and manganese in groundwater samples exceeded the U.S. EPA secondary maximum contaminant levels (SMCLs). These drinking water standards are based on odor and taste and not health based. Therefore, these metals are not considered to be contaminating the Site. 1,2-dichloroethane (EDC) was detected in only one of the groundwater samples over the maximum contaminant level (MCL). The MCL is based on risk to human health and is used to determine if groundwater is safe to drink. Because EDC exceeded the MCL, drinking groundwater at the Site would pose a risk. However, there are no drinking water wells located on the Site and the Site is located in the City of Wilmington Groundwater Management Zone (GMZ). The GMZ states that no one is allowed to install drinking water wells on the Site. Therefore, no one could be drinking the contaminated groundwater at the Site. The impact of groundwater discharge to the Brandywine Creek was also evaluated. Mass loading calculations indicated that EDC concentrations would dilute and would be below the MCL by the time it reached the Brandywine Creek. The results of the calculation were confirmed by the fact that EDC in the hydraulically down gradient wells (adjacent to Brandywine Creek) was below the MCL.

The Remedial Investigation did not confirm the elevated PCB levels in sediment that were detected during the BPA II investigation.

October 11, 2004 Sampling Report for Fire Effects-Lead was detected in one small area of the Site but it was below the DNREC-SIRB commercial standard.

November 2006 Vapor Intrusion Risk Assessment- Groundwater contaminants which exceeded the MCL from the Site were input into the Johnson and Ettinger Model according to the DNREC March 2007 "Policy concerning the investigation, risk determination and remediation for the Vapor Intrusion pathway". The results indicated that the risk from vapor intrusion from the subsurface into a building or site was below action levels and thus not a concern at the Site.

### **Why did the Proposed Plan for this Site have to be revised?**

A Proposed Brownfield Remedial Action Plan was advertised in December 2004. The Final Brownfield Remedial Action Plan was advertised in January 2005. The plan had to be revised because the intended use of the Site changed from residential to commercial and also because the arsenic standards changed.

### **What does the owner want to do at the Wilmington Rolling Mill Site?**

The Site owner plans to build a large commercial (approximately 150 ft x 240 ft) office building and concrete sidewalk surrounded by asphalt-paved parking areas extending to the Site boundaries. A thin tree-lined buffer would separate the parking lot from Church Street, and two small landscaped islands are planned in the parking area.

A thin tree-lined buffer would separate the parking lot from Church Street, and two small landscaped islands are planned in the parking area. Other than these landscaped areas, the entire site will be capped with a building and paved parking.

**What clean-up actions have been taken at the former Wilmington Rolling Mill Site?**

In July 2000, a small number of hazardous waste drums were removed from the Site and properly abandoned. In August 2001, five underground storage tanks were removed from the Site. On November 11, 2001, the DNREC Tank Management Branch wrote a letter to the former owner stating that the Site needed no further action as it related to the underground storage tanks on the Site.

**What additional clean-up actions are needed at the former Wilmington Rolling Mill Site?**

DNREC's proposed clean-up action involves the placement of 2 feet of DNREC-approved clean fill material, buildings, parking lot and sidewalks to eliminate exposure to soil contaminated with arsenic and benzo (a) pyrene. These clean-up activities will take place at the same time as the construction on the Site.

The soil does not present a risk to construction workers. However, since there is little data on the soil under the current building, to protect the construction workers, DNREC-SIRB would require a contaminated materials management plan for the soil under the footprint of the current building so that Site construction workers could safely handle the soil. Site development could only take place after the Site owner obtained erosion and sediment control plan approval. This is a plan which details how to prevent soil from washing across the Site into Brandywine Creek. Additionally, an O&M plan will be prepared and submitted to DNREC for approval in order to maintain the integrity of the remedy at the site.

The City of Wilmington right-of-way would be fenced off to prevent access to this area.

The following cleanup actions are proposed for the site:

1. The current Site surface will be capped by constructing the buildings, sidewalks, paved parking lot and two feet of clean fill in rest of the site. This will eliminate exposure to soil contaminated with benzo (a) pyrene and arsenic above DNREC restricted standards.
2. Access to the City of Wilmington right-of-way will be restricted by the placement of fencing to minimize the potential for surface soil contact. If, in the future, the City installs a hardscape walking path along the Brandywine, the fencing will no longer be required.
3. Exposure to contaminated areas of surface and subsurface soil under the footprint of the current building during the "redevelopment" construction will be minimized to the greatest extent possible. All excavation activities at the existing building will be overseen in the field by the Environmental Consultant, and performed in accordance with a Site-specific Health and Safety Plan (HASP) and a DNREC-approved site-specific Contaminated Material Management Plan (CMMP).
4. The Site use will be restricted to commercial use by the owner by the placement of an environmental covenant consistent with Delaware's Uniform Environmental Covenant Act (UECA) within 90-days following DNREC's adoption of the Final Plan of Remedial Action. Any future development of the parcels will be limited to commercial development. The environmental covenant will also note that all post-redevelopment land disturbing activities on

the Site will be prohibited (including but not limited to digging, drilling, construction, earth moving or any other land disturbing activity) without DNREC's prior written approval except in landscaping areas (O&M Plan), where they may dig down to a depth of 2 feet without notifying DNREC. The covenant will reference the City of Wilmington Groundwater Management Zone, which prohibits the installation of wells and use of any groundwater from within the limits of the City of Wilmington without DNREC's prior written approval.

5. A DNREC approved Erosion and Sediment Control Plan (E&S Plan) will be implemented prior to any property development to prevent any surface soils from discharging from the Site.
6. A DNREC-approved Operation and Maintenance (O&M) Plan will be established and implemented within ninety (90) days following construction completion. The O&M plan will detail the procedures and practices to be followed in order to minimize the potential for disturbing the cap and to promote the long-term integrity of the cap, including regular inspections.

**What are the long term plans for the Site after the cleanup?** The long term plans for the Site include requiring limited site reuse through the use of an environmental covenant to restrict the property to industrial or commercial use. The environmental covenant would also require that DNREC be contacted and give permission prior to any digging or land disturbing activity except in landscaped areas. In landscaped areas, DNREC would only be notified and have to give permission if digging was below two feet. Regular O&M inspections will take place to ensure the cap is not damaged to the point that contaminated soil is exposed. If it is damaged, the owner of the Site would be required to repair it.

Current and future owners of the property will be responsible for the implementation of all aspects and costs of the approved remedy, including all requirements of the final plan of remedial action, the DNREC approved contaminated materials management plan and O&M plan, and the adherence to the requirements and conditions established in the uniform environmental covenants for the site.

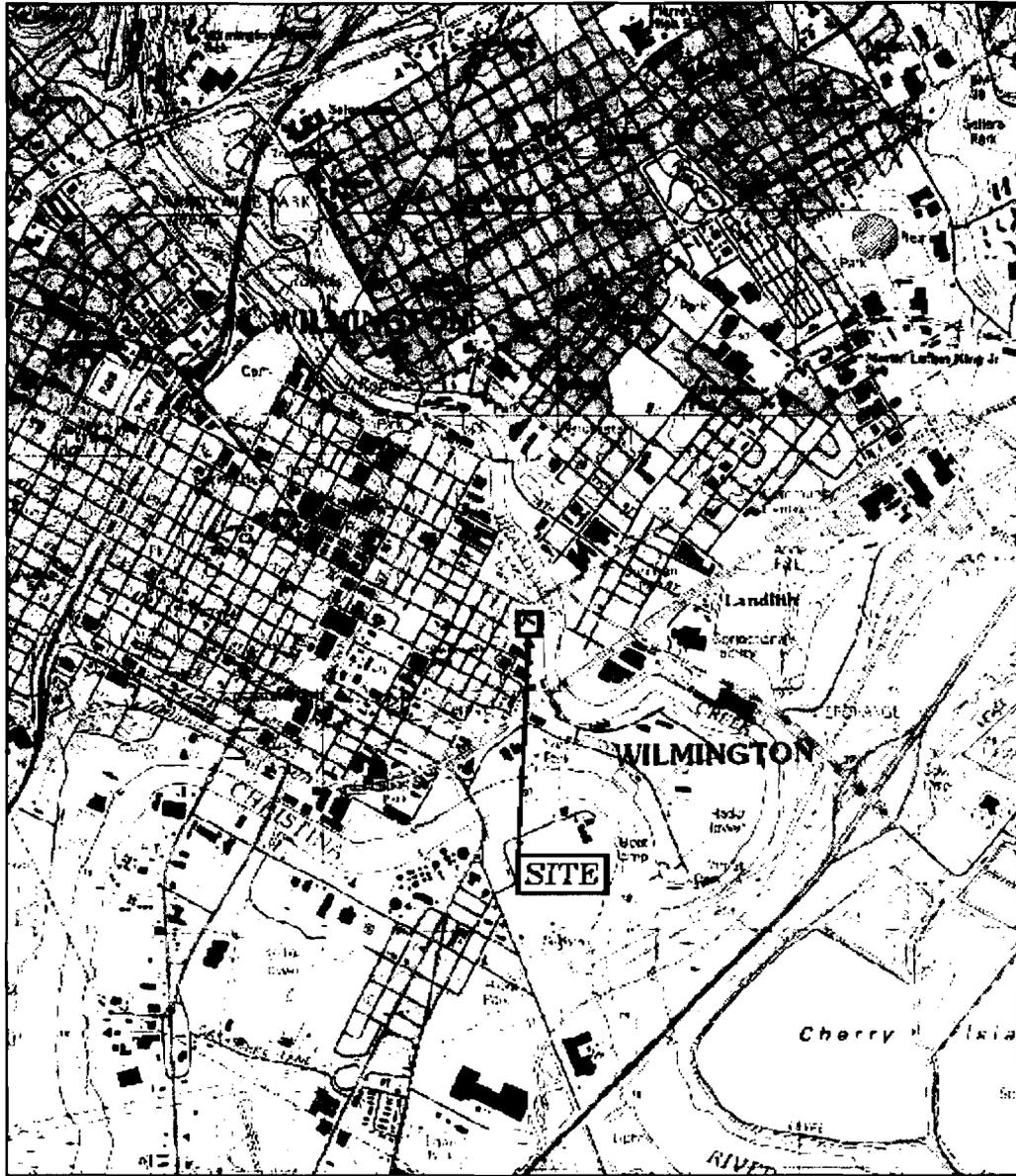
DNREC plans to issue a Certificate of Completion of Remedy (COCR) for the Site after the completion of clean-up, the redevelopment of the property, and the implementation of the uniform environmental covenant and O&M plan at the site.

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

The complete file on the site including the Brownfield Preliminary Assessment II, Remedial Investigation and Sampling Report for Fire Effects 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 February 11, 2008 and ends on March 3, 2008. Please send written comments to the DNREC office or call Rick Galloway, Project Manager, at 302-395-2600.



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Source: USGS Wilmington South, DE Quadrangle

REVISION ONE:  
12/02/04

DESIGNED BY:  
RK

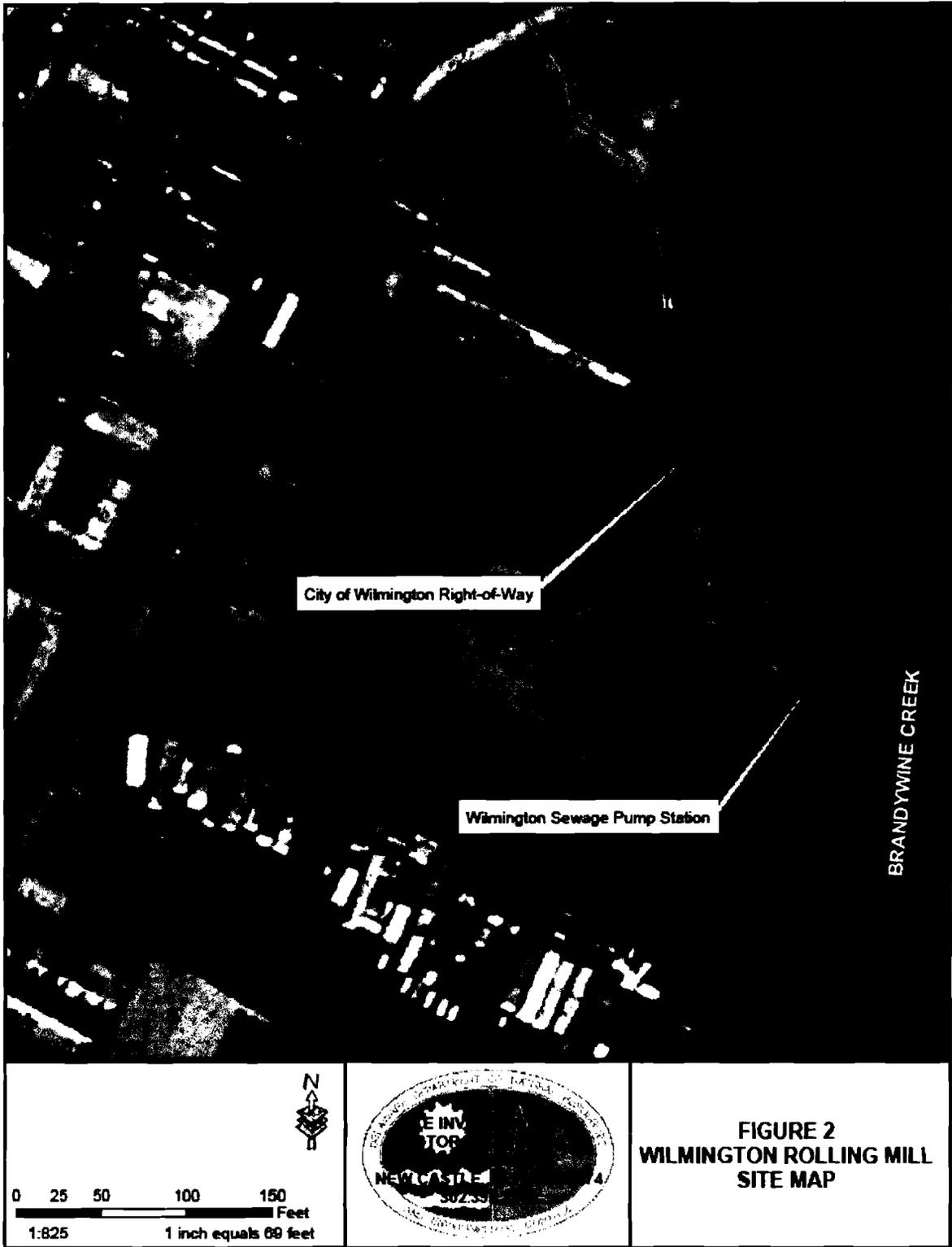
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Environmental Alliance, Inc.  
1812 Newport Gap Rd.  
Wilmington, DE 19806

FIGURE 1  
TOPOGRAPHIC MAP  
1000-1020 CHURCH STREET  
WILMINGTON, DE



**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>Certified Brownfield</b>	A brownfield that DNREC has determined is eligible for partial funding through the Delaware Brownfields Program.
<b>Contaminant of Concern (COC)</b>	These are potentially harmful substances at concentrations above acceptable levels (eg metals and PAH).
<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>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 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 requires cleanup with oversight of the Department.
<b>Proposed Plan of Remedial Action</b>	A plan for cleaning up a hazardous site submitted by DNREC and subject to public comments.
<b>Risk</b>	Likelihood or probability of injury, disease, or death.
<b>Vapor Intrusion</b>	The migration of vapors from subsurface contamination, including groundwater and in soil, into buildings.

## **What is a *Proposed Plan*?**

A Proposed Plan of Remedial Action (Proposed Plan) is a summary of how DNREC intends to clean up a contaminated site. A Final Plan of Remedial Action (Final Plan) is the adoption of the Proposed Plan after DNREC considers all comments made by the public within the comment period of twenty days.

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 opinions 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 the general public to understand the site and its problems. 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.

DNREC collects comments at the public meetings, by phone or in writing. DNREC considers all comments and questions from the public before it makes the Proposed Plan final.

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