

Application Type New
Facility Type Industrial
Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL INDUSTRIAL WASTE (IW)
AND IW STORMWATER**

Application No. PA0245151
APS ID 1008218
Authorization ID 1299732

Applicant and Facility Information

Applicant Name	<u>The Devereux Foundation</u>	Facility Name	<u>Devereux Brandywine Campus GWCU</u>
Applicant Address	<u>160 Devereux Road</u> <u>Villanova, PA 19343</u>	Facility Address	<u>100 Shaw Drive</u> <u>Glenmoore, PA 19343</u>
Applicant Contact	<u>Diane Drumheller</u>	Facility Contact	<u>Diane Drumheller</u>
Applicant Phone	<u>(484) 228-4836</u>	Facility Phone	<u>(484) 228-4836</u>
Client ID	<u>175703</u>	Site ID	<u>569324</u>
SIC Code	<u>8211</u>	Municipality	<u>Wallace Township</u>
SIC Description	<u>Services - Elementary And Secondary Schools</u>	County	<u>Chester</u>
Date Application Received	<u>November 25, 2019</u>	EPA Waived?	<u>No</u>
Date Application Accepted	<u></u>	If No, Reason	<u>Discharging to TMDL waters</u>
Purpose of Application	<u>Petroleum impacted groundwater cleanup activities.</u>		

Summary of Review

The applicant requests issuance of an NPDES permit to discharge treated petroleum impacted groundwater from environmental cleanup activities.

The applicant is proposing the remediation activities to address the impacts of a leaking from a former heating oil underground storage tank. The site is under PADEP supervision via the Act 2 program. The contaminated groundwater will be pumped through an oil-water separator and two granulated, activated carbon vessels. The system will not have a backwash process. Any system cleaning wastewater if generated, will be run through the system or disposed of by a licensed hauler. The treated groundwater is discharged through a dedicated, buried PVC pipe that drains to a storm sewer box at the NW corner of Shaw Drive and Devereux Road. Outfall 002 is the outlet of the storm sewer line.

Since this is a new discharge to a High-Quality stream (HQ-TSF, MF, UNT to East Branch Brandywine Creek), based on the antidegradation guidance, the existing quality of the receiving stream should be maintained and protected.

The parameters included in the permit are similar to the parameters in the General Permit for discharges from petroleum product contaminated groundwater remediation systems. Additional parameters are based on the sample analysis.

For Benzene, Toluene, Ethylbenzene, and Naphthalene the discharge concentrations should be non-detect using the target quantitation limit (TQL) equivalent (or less) to those listed in the attachment C of the instruction for the NPDES application for individual permit to discharge industrial wastewater.

Total Suspended Solids and Oil and Grease limits are established as 5.0 mg/l based on Best Available Technology.

Approve	Deny	Signatures	Date
X		<i>Sara Abraham</i> Sara Reji Abraham, E.I.T. / Project Manager	April 1, 2020
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	04/06/2020

Summary of Review

This discharge is into an unnamed tributary to East Branch Brandywine Creek which is in the Christina River Basin. The Christina River Basin Total Maximum Daily Load (TMDL) for Nutrients and Dissolved Oxygen for low-flow conditions was issued by EPA on January 19, 2001 and subsequently revised on October 2002 and April 2006. The TMDL parameters are CBOD5, NH3-N, TN, TP and DO. The Christina River Basin also has approved high-flow TMDLs for Bacteria and Sediment and for Nutrient and Low DO.

This is a new discharge and not listed in the TMDLs. We do not have data to characterize the pollutant levels (TMDL parameters) in this proposed discharge currently. Since the proposed flow is small (0.0025 mgd) and much of the drainage would most likely infiltrate the ground before reaching the receiving stream, this discharge may have minimal impact to the stream even during low flow conditions. Therefore, an annual monitoring for TMDL parameters is included in the permit.

The following are the proposed limits:

Parameter	Average Monthly	Basis
Benzene (µg/l)	N.D. (< 0.5)	Antidegradation/TQL
Toluene (µg/l)	N.D. (< 0.5)	Antidegradation/TQL
Ethylbenzene (µg/l)	N.D. (< 0.5)	Antidegradation/TQL
Naphthalene (µg/l)	N.D. (<0.5)	Antidegradation/TQL
Total Xylenes	Report	No TQL
Total BTEX	Report	
Total Suspended Solids (mg/l)	5	BAT
Oil and Grease (mg/l)	5	BAT
pH (SU)	6.0 to 9.0 at all times	Chapter 95.2
1,2,4 - trimethylbenzene	Report	Data collection/based on sampling
1,3,5- trimethylbenzene	Report	Data collection/based on sampling
Dissolved Oxygen (mg/l)	Minimum of 6.0 mg/l at all times	BPJ
CBOD5	Report (Annual Average)	Data collection as these are the TMDL parameters
NH3-N	Report (Annual Average)	
Total Nitrogen	Report (Annual Average)	
Total Phosphorus	Report (Annual Average)	
Fecal Coliform	Report (Annual Average)	

A special condition related with the groundwater system monitoring is also included in the permit based on the recommendation from the Environmental Cleanup Program.

Summary of Review

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Act 14 Notifications:

Wallace Township	-	October 7, 2019
Chester County	-	October 7, 2019

Permit Conditions:

- A. Acquire Necessary Property Rights
- B. Proper Sludge Disposal
- C. BAT/ELG Reopener
- D. TMDL/WLA Analysis
- E. Start-up Condition
- F. Continuous Operation
- G. Groundwater Cleanup

Discharge, Receiving Waters and Water Supply Information

Outfall No.	<u>002</u>	Design Flow (MGD)	<u>.0025</u>
Latitude	<u>40° 4' 52.93"</u>	Longitude	<u>-75° 45' 21.63"</u>
Quad Name	<u>Wagontown</u>	Quad Code	<u>1839</u>
Wastewater Description: <u>Groundwater Cleanup Discharge</u>			
Receiving Waters	<u>Unnamed Tributary to East Branch Brandywine Creek (HQ-TSF, MF)</u>	Stream Code	<u>00359</u>
NHD Com ID	<u>26105582</u>	RMI	<u>0.3200</u>
Watershed No.	<u>3-H</u>	Chapter 93 Class.	<u>HQ-TSF, MF</u>
Assessment Status	<u>Attaining Use(s)</u>		
TMDL Status	<u>Final</u>	Name	<u>Christina River Basin</u>

Treatment Facility Summary				
Treatment Facility Name: Devereux Brandywine Campus GWCU				
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Industrial				
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal

Proposed Effluent Limitations and Monitoring Requirements

Outfall 002, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	2/month	Grab
DO	XXX	XXX	6.0 Inst Min	XXX	XXX	XXX	2/month	Grab
TSS	XXX	XXX	XXX	5.0	10.0	12.5	1/month	Grab
Oil and Grease	XXX	XXX	XXX	5.0	10.0	12.5	1/month	Grab
Ethylbenzene	XXX	XXX	XXX	<0.0005	<0.0005	<0.0005	1/month	Grab
1,2,4-Trimethyl-benzene	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
1,3,5-Trimethyl-benzene	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Benzene	XXX	XXX	XXX	<0.0005	<0.0005	<0.0005	1/month	Grab
Total BTEX	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Naphthalene	XXX	XXX	XXX	<0.0005	<0.0005	<0.0005	1/month	Grab
Toluene	XXX	XXX	XXX	<0.0005	<0.0005	<0.0005	1/month	Grab
Total Xylenes	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	Report Annl Avg	Report	XXX	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	Report Annl Avg	Report	XXX	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	Report Annl Avg	Report	XXX	1/year	Grab

Outfall 002, Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Ammonia-Nitrogen	XXX	XXX	XXX	Report Annl Avg	Report	XXX	1/year	Grab
Total Phosphorus	XXX	XXX	XXX	Report Annl Avg	Report	XXX	1/year	Grab