pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0053554**
Facility Type	**Storm Water**	APS ID	**1082911**
Major / Minor	**Minor**	Authorization ID	**1430161**

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

Applicant and Facility Information

Applicant Name	**Hyponex Corporation**	Facility Name	**Scotts Company Potting Soil Facility**
Applicant Address	944 Newark Road	Facility Address	944 Newark Road
	Avondale, PA 19311-1133		Avondale, PA 19311-1133
Applicant Contact	William Frantz	Facility Contact	William Frantz
Applicant Phone	(610) 268-3006	Facility Phone	(610) 268-3006
Client ID	187463	Site ID	452183
SIC Code	2875 & 2499	Municipality	New Garden Township
SIC Description	Manufacturing - Fertilizers, Mixing Only	County	Chester
Date Application Received	March 3, 2023	EPA Waived?	No
Date Application Accepted		If No, Reason	Christina River Basin TMDL
Purpose of Application	Permit Renewal		

Summary of Review

The permittee requests approval for the renewal of a National Pollutant Discharge Elimination System (NPDES) Individual Permit to discharge stormwater from a soil processing facility located at 944 Newark Road in Avondale, PA. The facility discharges stormwater to an unnamed tributary of West Branch Red Clay Creek designated as Trout Stocking Fishery (TSF) in the Christina River Basin.

The site blends ingredients to make soil and mulch products for retail sale. Soil raw materials include leached spent mushroom substrate, bark fines, wood fiber, peat moss, coir, sand, topsoil, compost and other similar materials. Additives include fertilizers, perlite, pluronic, and lime. Colorants are used to dye the mulch. After being mixed, the soils and mulches are bagged, palletized, and wrapped before being stored outside until shipped.

The Christina River Basin Total Maximum Daily Load (TMDL) for Nutrients and Dissolved Oxygen for Low-Flow Conditions, was issued by the Environmental Protections Agency (EPA) on January 19, 2001 and subsequently revised on October 2002 and April 2006. Furthermore, DEP prepared, and EPA acknowledged an Alternative Reduction Scenario for the Christina River Basin for Low Flow TMDL dated June 27, 2012 to reassign some of the allocations within the dischargers by keeping the total load to the basin same. Hyponex Corporation is mentioned as Scotts Company Potting Soil in the Alternative Reduction Scenario TMDL (Summary Table 17. TMDL Summary for Red Clay Creek West Branch), for the following average monthly concentrations: 15 mg/l for $CBOD_5$, 1.5 mg/l for NH_3N, 5.0 mg/l for Dissolved Oxygen, 3.63 mg/l for Total Nitrogen, and 2.0 mg/l forTotal Phosphorus. The Christina River Basin also has an approved High-Flow TMDL for Bacteria and Sediment (dated September 2006). Scotts Company Potting Soils (PA0053554) is mentioned on Table 2-2 and gives this facility limits for Total Suspended Solids (TSS) of 100 mg/l and Fecal Coliform of 200 CFU/100ml.

Approve	Deny	Signatures	Date
X		*Sara Abraham* Sara Reji Abraham, E.I.T. / Project Manager	January 16, 2024
X		*Pravin Patel* Pravin C. Patel, P.E. / Environmental Engineer Manager	01/16/2024

Summary of Review

Since this is an industrial stormwater permit, the permittee will only discharge under stormwater events. Therefore, low flow TMDL conditions does not apply to this discharge. This discharge is mentioned and assigned effluent waste load allocations under the Christina low flow TMDL, however those limits are not applicable.

The permittee is not given numerical limits in the Christina River TMDL for Nutrient and Low Dissolved Oxygen under High-Flow conditions. This TMDL document states that "Implementation of best management (BMPs) in the affected areas should achieve the loading reduction goals established in the TMDLs". Additionally, it states that "Permits for storm water discharges associated with industrial activity are to require compliance with all applicable provisions of Sections 301 and 402 of the CWA, i.e., all technology-based and water quality-based requirements. See 33 U.S.C. § 1342(p)(3)(A)". This does not apply because Existing nutrients levels are treated with current BMPs and additional permit requirements will address any additional changes in nutrient values. Permit is consistent with the assumptions of the TMDL.

A review of the DMRs shows elevated levels of TSS, COD and Fecal Coliform. A site inspection was conducted by DEP on 10/4/2023. An assessment of the retention basin and pre-settling area revealed the presence of excess solids. The plant manager agreed that the pre-settling is overdue to be cleaned out and believes that the elevated levels found in the effluent may be the result of these conditions. The facility already scheduled cleaning the pre-settling area and retention basin. According to the permit requirements the facility is required to submit a corrective action plan (CAP) to reduce the pollutant concentrations in the stormwater discharge. DEP is working with the facility to implement additional BMPs to meet the benchmark values established in the permit and to be consistent with the Christina River Basin High-Flow TMDL. Operations Section will follow up with the permit compliance issues with the facility.

The SIC Codes listed in the application are 2875 and 2499, and the applicable Appendices under the PAG-03 are Appendices F and D, respectively. Monitoring for Total Nitrogen, Total Phosphorus, pH, Chemical Oxygen Demand, Total Suspended Solids, Nitrate + Nitrite-Nitrogen, Total Lead, Total Zinc, Total Iron, Total Aluminum, Pentachlorophenol, Total Arsenic, Total Chromium, Total Copper are included in the draft permit similar to the existing permit requirements and to be consistent with the applicable appendices.

Carbonaceous Biochemical Oxygen Demand, Fecal Coliform, Dissolved Oxygen, Ammonia-Nitrogen, Nitrate as N, Dissolved Iron, Total Iron, 4,4-DDD, 4,4-DDT, and 4,4-DDE will be continued to be in the draft permit.

The existing benchmark values for TSS (100 mg/l), COD (120 mg/l), and Fecal Coliform (200/1000 #s) are continued in the draft permit. BOD5 and Oil and Grease are not the required parameters to be monitored under this permit similar to the existing permit. Based on the review there is no concern for these parameters, and they are not listed in the applicable Appendices under PAG03 General Permit. Therefore BOD5 (75 mg/l), and Oil and Grease (30 mg/l) benchmark values are not needed to be included in the permit. These benchmark values were inadvertently included in the existing permit. According to the new PAG03 appendices, benchmark values for pH (9.0 S.U.), Nitrate + Nitrite-Nitrogen (3.0 mg/l) are included in the draft permit.

There are two Outfalls 001 and 002 listed in the application. Outfall 002 is check marked for No exposure condition. However, the sampling results are not consistent with the no exposure condition. Monitoring requirements are included in the draft permit for Outfall 002 similar to the Outfall 001 requirements.

A groundwater monitoring requirement was historically included in the permit and there is no active remediation system present at the site. Based on the review, it seems like this requirement was included to gain a better understanding of the groundwater quality at the site. There are three monitoring wells, MW-1, MW-2, and MW-3 present at the site. The requirement to continue monitoring is included in the draft permit.

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.

Summary of Review

Act 14 Notifications:

New Garden township - February 15, 2023
Chester County - February 15, 2023

Permit Conditions:

A. Stormwater Outfalls
B. Best Management Practices (BMPs)
C. Stormwater Monitoring Requirements
D. Routine Inspections
E. Preparedness, Prevention and Contingency Plan
F. Acquire Necessary Property Rights
G. Sludge Disposal Requirement
H. BAT/BCT Reopener
I. Remedial Measures if Public Nuisance
J. Dust Suppression
K. Groundwater Monitoring

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001 and 002	Design Flow (MGD)	0
Latitude	39º 49' 52.61"	Longitude	-75º 45' 11.08"
Quad Name	West Grove	Quad Code	2039
Wastewater Description:	Stormwater		
Receiving Waters	Unnamed Tributary of West Branch Red Clay Creek	Stream Code	00396
NHD Com ID	26108882	RMI	0.170
Drainage Area	0.32 mi^2	Yield (cfs/mi^2)	0.2212
Q_{7-10} Flow (cfs)	0.0708	Q_{7-10} Basis	Previous fact sheet (Pennsylvania Streamstats)
Elevation (ft)	388.2	Slope (ft/ft)	3.4
Watershed No.	3-I	Chapter 93 Class.	TSF, MF
Assessment Status	Impaired		
Cause(s) of Impairment	Nutrients, PCB, Siltation		
Source(s) of Impairment	Agriculture, Agriculture, Source Unknown		
TMDL Status	Final, 01/01/2003	Name	Christina River Basin, Red Clay Creek Watershed
Nearest Downstream Public Water Supply Intake	Kennett Square		
		Distance from Outfall (mi)	>2 mile

Compliance History

DMR Data for Outfall 001 (from October 1, 2022 to September 30, 2023)

Parameter	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22
pH (S.U.) Instantaneous Minimum	7.43			7.61			7.40			6.82		
pH (S.U.) Instantaneous Maximum	6.18			7.61			7.40			7.67		
DO (mg/L) Instantaneous Minimum	5.55			8.4			8.80			8.94		
CBOD5 (mg/L) Daily Maximum	7.5			14.7			38.7			14.8		
COD (mg/L) Daily Maximum	215			323			521			298		
TSS (mg/L) Daily Maximum	32.0			218			242			84.0		
Fecal Coliform (No./100 ml) Daily Maximum	20000			> 20000			< 3			> 20000		
Nitrate-Nitrite (mg/L) Daily Maximum	< 1.00			< 1.00			< 1.00			< 1.00		
Total Nitrogen (mg/L) Daily Maximum	6.99			7.68			21.4			13.5		
Ammonia (mg/L) Daily Maximum	1.64			< 0.50			5.42			6.75		
Nitrate (mg/L) Daily Maximum	< 1.00			< 1.00			< 1.00			< 1.00		
Total Phosphorus (mg/L) Daily Maximum	1.66			2.17			3.49			2.56		
Total Aluminum (mg/L) Daily Maximum	0.540			3.71			6.22			1.68		
Total Arsenic (mg/L) Daily Maximum	< 0.020			< 0.050			< 0.020			< 0.020		
Total Chromium (mg/L) Daily Maximum	< 0.020			< 0.050			0.036			< 0.020		

Total Copper (mg/L) Daily Maximum	< 0.020			< 0.050			0.067			< 0.040		
Dissolved Iron (mg/L) Daily Maximum	0.481			0.311			3.24			1.40		
Total Iron (mg/L) Daily Maximum	1.13			5.37			8.26			2.71		
Total Lead (mg/L) Daily Maximum	< 0.020			< 0.050			< 0.020			< 0.020		
Total Zinc (mg/L) Daily Maximum	< 0.200			< 0.500			< 0.200			< 0.200		
4,4-DDD (mg/L) Daily Maximum				< 0.10						0.02		
4,4-DDT (mg/L) Daily Maximum				< 0.10						< 0.02		
4,4-DDE (mg/L) Daily Maximum				< 0.03						0.02		
Pentachloro-phenol (mg/L) Daily Maximum	< 0.990			< 4.90			< 4.90			< 4.76		

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfall 001, 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 Quarterly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/quarter	Grab
DO	XXX	XXX	Report Inst Min	XXX	XXX	XXX	1/quarter	Grab
CBOD5	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
COD	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Nitrate-Nitrite	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Ammonia	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Nitrate	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Arsenic	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Chromium	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab

Outfall 001, 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 Quarterly	Daily Maximum	Instant. Maximum		
Total Copper	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Dissolved Iron	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Lead	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
4,4-DDD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
4,4-DDT	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
4,4-DDE	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Pentachloro-phenol	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab

Proposed Effluent Limitations and Monitoring Requirements

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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 Quarterly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/quarter	Grab
DO	XXX	XXX	Report Inst Min	XXX	XXX	XXX	1/quarter	Grab
CBOD5	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
COD	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Nitrate-Nitrite	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Ammonia	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Nitrate	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Arsenic	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Chromium	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Copper	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	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 Quarterly	Daily Maximum	Instant. Maximum		
Dissolved Iron	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Lead	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
4,4-DDD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
4,4-DDT	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
4,4-DDE	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Pentachloro-phenol	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab