Pennsylvania Department of Environmental Protection

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0087891**
Facility Type	**Storm Water**	APS ID	**474179**
Major / Minor	**Minor**	Authorization ID	**1508274**

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

Applicant and Facility Information

Applicant Name	**Growmark FS LLC**	Facility Name	**Growmark FS LLC**
Applicant Address	1705 Towanda Avenue	Facility Address	3150 Stoney Point Road
	Bloomington, IL 61701-2040		East Berlin, PA 17316-9654
Applicant Contact	Brad Legg	Facility Contact	Mike Parr
Applicant Phone	(309) 557-6980	Facility Phone	(717) 259-9573
Client ID	205346	Site ID	488562
SIC Code	5191	Municipality	Latimore Township
SIC Description	Wholesale Trade - Farm Supplies	County	Adams
Date Application Received	December 1, 2024	EPA Waived?	Yes
Date Application Accepted	December 13, 2024	If No, Reason	

Purpose of Application: NPDES discharge of stormwater associated with industrial activity.

Summary of Review

This is a renewal application for an NPDES individual permit for discharges of stormwater associated with industrial activity located in Latimore Township, Adams County. See Figures 1 and 2 for site maps.

Facility Description: Packaging of bulk agricultural products and road salt for distribution.

The facility's primary SIC code is 5191 (Wholesale Trade – Farm Supplies). SIC code 5191 does not typically require an NPDES permit for discharges of stormwater associated with industrial activity. Due to the site's history of contamination issues, mainly from spills in the 1980s by a previous occupant, DEP required an individual NPDES permit for stormwater discharges associated with industrial activity. Alachlor and Atrazine were the primary pollutants of concern, each having EPA designated maximum contaminant levels (MCLs) of 0.002 mg/L and 0.003 mg/L, respectively.

Currently, the facility is covered under PA0087891 A-1, issued 4/30/2024. The permit amendment removed the quarterly Alachlor monitoring and reporting requirements at Outfalls 001 and 002. The facility no longer stores or handles Alachlor. Alachlor concentrations were reported as non-detect for 9 quarters leading up to the amendment.

A renewal application was received on 12/1/2024 via PUP 273987. The application was deemed complete on 12/13/2024. A technical deficiency notice was issued on 4/21/2025 via email. The deficiencies were addressed on 8/1/2025 via email.

When reviewing the revised application and facility records, it was observed that the benchmark of 100 mg/L for Total Suspended Solids (TSS) was exceeded for two or more consecutive monitoring periods at Outfalls 001 and 003. Per Part C.V.F of the permit, a corrective action plan (CAP) had to be submitted for the exceedances. A request for a CAP was sent via email on 9/10/2025. A CAP was received via email on 10/14/2025. See Attachment A.

Approve	Deny	Signatures	Date
X		*Jacob S. Rakowsky* Jacob S. Rakowsky, E.I.T. / Project Manager	11/6/2025
X		*Scott M. Arwood* Scott M. Arwood, P.E. / Environmental Engineer Manager	11/6/2025

Summary of Review

There was also concern for the Total Nitrogen (TN) results at Outfalls 001, 002, and 003 and for the Atrazine results at Outfalls 001 and 002. Although a CAP was not required by the permit, the facility provided a possible source and proposed solution for the results via email on 10/29/2025. See Attachment A.

The facility previously had a total of three outfalls: Outfalls 001, 002, and 003. During a DEP site inspection on 2/7/2025, inspection ID No. 3919694, it was noted that additional stormwater outfalls should be included in the facility's permit. As a result, Outfalls 004 and 005 were included in the revised application received 8/1/2025. Outfalls 001, 002, 003, 004, and 005 ultimately discharge to a UNT to Mud Run (WWF, MF).

The PPC Plan was last updated April 2019.

Part C permit conditions require semiannual site inspections as well as implementation of BMPs and implementation of the facility PPC plan. Given the BMPs in place, the discharge is not expected to have any measurable effect on the water quality of the receiving stream.

EPA waiver is in effect.

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.

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	N/A (stormwater)
Latitude	39º 59' 56"	Longitude	-77º 1' 47"
Wastewater Description:	Stormwater associated with industrial activity.		
Receiving Waters	Unnamed Tributary to Mud Run (WWF, MF)	Stream Code	8622 (Mud Run)
NHD Com ID	57468677	RMI	4.29 (Mud Run)
Drainage Area	10.3 sq. mi.	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	0.189	Q_{7-10} Basis	StreamStats
Watershed No.	7-F	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Not Assessed		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	PPL Bruner Island		
PWS Waters	Susquehanna River	Municipality	East Manchester Twp, York County
PWS RMI	39.5	Distance from Outfall (mi)	40

Drainage Area (sf): 16,510

% Impervious: 100%

Description of Materials/Activities in Drainage Area Exposed to Precipitation:
Transportation and management of agricultural products for distribution; chemicals used as part of the facility's processes.

Description of Treatment or BMPs in Drainage Area to Control Pollutants in Stormwater:
Secondary containment for bulk storage; daily housekeeping; loading, unloading, and material storage under roof; cleaning field vehicles in an enclosed wash bay where rinse water is contained and used for farm field applications; routine tank inspections; initial and refresher employee training in areas of materials handling, site housekeeping, application truck housekeeping, and safety.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	N/A (stormwater)
Latitude	39º 59' 56"	Longitude	-77º 1' 48"
Wastewater Description:	Stormwater associated with industrial activity.		
Receiving Waters	Unnamed Tributary to Mud Run (WWF, MF)	Stream Code	8622 (Mud Run)
NHD Com ID	57468677	RMI	4.29 (Mud Run)
Drainage Area	10.3 sq. mi.	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	0.189	Q_{7-10} Basis	StreamStats
Watershed No.	7-F	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Not Assessed		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	PPL Bruner Island		
PWS Waters	Susquehanna River	Municipality	East Manchester Twp, York County
PWS RMI	39.5	Distance from Outfall (mi)	40

Drainage Area (sf): 28,826

% Impervious: 100%

Description of Materials/Activities in Drainage Area Exposed to Precipitation:
Transportation and management of agricultural products and rock salt for ice melt for distribution; chemicals used as part of the facility's processes.

Description of Treatment or BMPs in Drainage Area to Control Pollutants in Stormwater:
Daily housekeeping; loading, unloading, and material storage under roof; routine tank inspections; initial and refresher employee training in areas of materials handling, site housekeeping, application truck housekeeping, and safety.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	003	Design Flow (MGD)	N/A (stormwater)
Latitude	39º 59' 53"	Longitude	-77º 1' 46"
Wastewater Description:	Stormwater associated with industrial activity.		
Receiving Waters	Unnamed Tributary to Mud Run (WWF, MF)	Stream Code	8622 (Mud Run)
NHD Com ID	57468677	RMI	4.29 (Mud Run)
Drainage Area	10.3 sq. mi.	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	0.189	Q_{7-10} Basis	StreamStats
Watershed No.	7-F	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Not Assessed		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	PPL Bruner Island		
PWS Waters	Susquehanna River	Municipality	East Manchester Twp, York County
PWS RMI	39.5	Distance from Outfall (mi)	40

Drainage Area (sf): 12,454

% Impervious: 100%

Description of Materials/Activities in Drainage Area Exposed to Precipitation:
Roof drains from Lawn Plant building.

Description of Treatment or BMPs in Drainage Area to Control Pollutants in Stormwater:
None.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	004	Design Flow (MGD)	N/A (stormwater)
Latitude	39º 59' 57"	Longitude	-77º 1' 48"
Wastewater Description:	Stormwater associated with industrial activity.		
Receiving Waters	Unnamed Tributary to Mud Run (WWF, MF)	Stream Code	8622 (Mud Run)
NHD Com ID	57468677	RMI	4.29 (Mud Run)
Drainage Area	10.3 sq. mi.	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	0.189	Q_{7-10} Basis	StreamStats
Watershed No.	7-F	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Not Assessed		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	PPL Bruner Island		
PWS Waters	Susquehanna River	Municipality	East Manchester Twp, York County
PWS RMI	39.5	Distance from Outfall (mi)	40

Outfall 004 is newly added to this permit renewal. Outfall 004 is represented by Outfall 001. No sampling will be required at Outfall 004.

Drainage Area (sf): 6,385

% Impervious: 100%

Description of Materials/Activities in Drainage Area Exposed to Precipitation:
Occasional off-loading of fertilizers from distributor to above ground storage tanks within secondary containment.

Description of Treatment or BMPs in Drainage Area to Control Pollutants in Stormwater:
Keeping discharge valve closed/locked until stormwater drainage is necessary, inspecting accumulated stormwater before drainage, daily housekeeping; initial and refresher employee training in areas of materials handling, site housekeeping, application truck housekeeping, and safety.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	005	Design Flow (MGD)	N/A (stormwater)
Latitude	39º 59' 53"	Longitude	-77º 1' 54"
Wastewater Description:	Stormwater associated with industrial activity.		
Receiving Waters	Unnamed Tributary to Mud Run (WWF, MF)	Stream Code	8622 (Mud Run)
NHD Com ID	57468677	RMI	4.29 (Mud Run)
Drainage Area	10.3 sq. mi.	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	0.189	Q_{7-10} Basis	StreamStats
Watershed No.	7-F	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Not Assessed		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	PPL Bruner Island		
PWS Waters	Susquehanna River	Municipality	East Manchester Twp, York County
PWS RMI	39.5	Distance from Outfall (mi)	40

Outfall 005 is newly added to this permit renewal. Outfall 005 is listed as a no exposure outfall. No sampling will be required at Outfall 005.

Drainage Area (sf): 24,310

% Impervious: 92%

Description of Materials/Activities in Drainage Area Exposed to Precipitation:
Material storage under roof.

Description of Treatment or BMPs in Drainage Area to Control Pollutants in Stormwater:
None – no exposure outfall.

Compliance History	
Summary of DMRs:	A summary of eDMR data can be found in Table 1a, 1b, and 1c below. Additional application sampling results can be found in Table 2 below. The facility was required to submit impairment sampling results for the pathogen impairment of the receiving water. The discharge is not expected to cause or contribute to an impairment. The facility is up to date on their eDMR submissions.
Summary of Inspections:	The facility was last inspected on 2/7/2025. No violations were noted. The client currently has no open violations that should affect issuance of the final permit.

Table 1a. Last 2 Years of eDMR Sampling Results for Outfall 001.

Monitoring Period	Outfall 001					
	pH (S.U)	TSS (mg/L)	TN (mg/L)	TP (mg/L)	Atrazine (mg/L)	Alachlor* (mg/L)
2025 Q2	6.42	214	183	4.9	0.0361**	Not required
2025 Q1	7.58	100	428	13.4	0.145**	Not required
2024 Q4	8.75	63	88.5	5.5	0.643	Not required
2024 Q3	6.6	39	51.4	7.1	0.0445	Not required
2024 Q2	6.64	83	85.6	8.8	0.0289	ND
2024 Q1	6.9	60	10.9	3.4	0.186	ND
2023 Q4	6.87	47	309	8.7	1.11	ND
2023 Q3	7.08	33	207	7	0.18	ND
Avg.	7.105	79.875	170.425	7.35	0.296688	ND
Max.	8.75	214	428	13.4	1.11	ND

*Alachlor monitoring and reporting requirements were removed with the 4/30/2024 permit amendment.
** This value was corrected via email on 10/29/2025. The value shown in eDMR was incorrectly entered.

Table 1b. Last 2 Years of eDMR Sampling Results for Outfall 002.

Monitoring Period	Outfall 002					
	pH (S.U)	TSS (mg/L)	TN (mg/L)	TP (mg/L)	Atrazine (mg/L)	Alachlor* (mg/L)
2025 Q2	6.84	97	15.3	0.44	0.0074**	Not required
2025 Q1	7.21	150	21	2.7	0.0044**	Not required
2024 Q4	7.82	46	4.32	1.4	0.0015	Not required
2024 Q3	6.82	87	60.9	5.8	0.0018	Not required
2024 Q2	6.98	60	3.09	0.85	0.003	ND
2024 Q1	6.87	420	70	1.2	0.0035	ND
2023 Q4	7.78	37	16.6	4.7	0.011	ND
2023 Q3	7.45	63	9.39	1.9	0.011	ND
Avg.	7.22125	120	25.075	2.37375	0.00545	ND
Max.	7.82	420	70	5.8	0.011	ND

*Alachlor monitoring and reporting requirements were removed with the 4/30/2024 permit amendment.
** This value was corrected via email on 10/29/2025. The value shown in eDMR was incorrectly entered.

Table 1c. Last 2 Years of eDMR Sampling Results for Outfall 003.

Monitoring Period	Outfall 003			
	pH (S.U)	TSS (mg/L)	TN (mg/L)	TP (mg/L)
2025 Q2	6.67	4	9.92	0.065
2025 Q1	7.97	41	18.3	0.74
2024 Q4	6.8	5	14.2	5
2024 Q3	7.57	79	1270	920
2024 Q2	6.84	236	21.4	0.092
2024 Q1	7.56	1250	19.9	1.7
2023 Q4	6.62	5	3.14	0.09
2023 Q3	8.3	97	16.7	0.37
Avg.	7.29125	214.625	171.695	116.0071
Max.	8.3	1250	1270	920

Table 2. Additional Application Sampling Results

Pollutant	Outfall 001	Outfall 002	Outfall 003
Oil and Grease (mg/L)	< 3.9	< 4.0	< 4.2
BOD5 (mg/L)	8.7	3.9	2.6
COD (mg/L)	40	20	20
E. coli (MPN/100ml)	> 2,419.6	93	> 2,419
Fecal Coliform (MPN/100mL)	1,120	1,990	> 2,419

Summary of Sampling Results:

The values in red in Tables 1a, 1b, 1c, and 2 exceeded typical PAG-03 benchmarks or permit limits. The applicable PAG-03 benchmarks include: 30 mg/L for Oil and Grease; 30 mg/L for BOD5; 120 mg/L for COD; 100 mg/L for TSS; 9.0 S.U. for pH. The previous permit did not include limits.

The previous permit required quarterly monitoring of pH, TSS, TN, TP, and Atrazine at Outfalls 001 and 002. The previous permit required quarterly monitoring of pH, TSS, TN, and TP at Outfall 003.

A CAP was required to be submitted for the consecutive TSS exceedances at Outfalls 001 and 003. See Attachment A.

A possible source and proposed solution for the high TN results at Outfalls 001, 002, and 003 and high Atrazine results at Outfalls 001 and 002 was provided. See Attachment A.

Proposed Effluent Limitations and Monitoring Requirements

All parameters from the previous permit have been included in this permit renewal for Outfalls 001, 002, and 003. Additionally, Total Dissolved Solids (TDS) and Chloride monitoring has been added to Outfall 002 due the management and storage of rock salt in its drainage area. Sampling at Outfall 004 is not required because Outfall 004 is being represented by Outfall 001. Sampling at Outfall 005 is not required because it is a no exposure outfall.

Table 3. Proposed Monitoring Requirements for Outfall 001.

Parameter	Effluent Limitations				Monitoring Requirements (1),(2)	
	Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Total Nitrogen (mg/L) (3)	XXX	XXX	Report	XXX	1/quarter	Calculation
Total Phosphorus (mg/L)	XXX	XXX	Report	XXX	1/quarter	Grab
Total Suspended Solids (TSS) (mg/L)	XXX	XXX	Report	XXX	1/quarter	Grab
pH (S.U.)	XXX	XXX	Report	XXX	1/quarter	Grab
Atrazine (mg/L)	XXX	XXX	Report	XXX	1/quarter	Grab

Footnotes
(1) The permittee shall conduct additional monitoring if specified by DEP in the letter authorizing permit coverage or other correspondence.
(2) This is the minimum number of sampling events required. Permittees are encouraged, and it may be advantageous in demonstrating compliance, to perform more than the minimum number of sampling events.
(3) Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO2+NO3-N), where TKN and NO2+NO3-N are measured in the same sample.

Table 4. Proposed Monitoring Requirements for Outfall 002.

Parameter	Effluent Limitations				Monitoring Requirements (1),(2)	
	Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Total Nitrogen (mg/L) (3)	XXX	XXX	Report	XXX	1/quarter	Calculation
Total Phosphorus (mg/L)	XXX	XXX	Report	XXX	1/quarter	Grab
Total Suspended Solids (TSS) (mg/L)	XXX	XXX	Report	XXX	1/quarter	Grab
pH (S.U.)	XXX	XXX	Report	XXX	1/quarter	Grab
Atrazine (mg/L)	XXX	XXX	Report	XXX	1/quarter	Grab
Total Dissolved Solids (TDS) (mg/L)	XXX	XXX	Report	XXX	1/quarter	Grab
Chloride (mg/L)	XXX	XXX	Report	XXX	1/quarter	Grab

Footnotes
(1) The permittee shall conduct additional monitoring if specified by DEP in the letter authorizing permit coverage or other correspondence.
(2) This is the minimum number of sampling events required. Permittees are encouraged, and it may be advantageous in demonstrating compliance, to perform more than the minimum number of sampling events.
(3) Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO2+NO3-N), where TKN and NO2+NO3-N are measured in the same sample.

Table 5. Proposed Monitoring Requirements for Outfall 003.

Parameter	Effluent Limitations				Monitoring Requirements (1),(2)	
	Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Total Nitrogen (mg/L) (3)	XXX	XXX	Report	XXX	1/quarter	Calculation
Total Phosphorus (mg/L)	XXX	XXX	Report	XXX	1/quarter	Grab
Total Suspended Solids (TSS) (mg/L)	XXX	XXX	Report	XXX	1/quarter	Grab
pH (S.U.)	XXX	XXX	Report	XXX	1/quarter	Grab

Footnotes

(1) The permittee shall conduct additional monitoring if specified by DEP in the letter authorizing permit coverage or other correspondence.
(2) This is the minimum number of sampling events required. Permittees are encouraged, and it may be advantageous in demonstrating compliance, to perform more than the minimum number of sampling events.
(3) Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO2+NO3-N), where TKN and NO2+NO3-N are measured in the same sample.

Benchmarks for TSS of 100 mg/L, pH of 9.0 S.U., and Chloride of 2,000 mg/L are included, which is typical of the monitoring requirements for PAG-03 Appendices (effective 3/24/2023).
BMPs from the PAG-03 Appendix K are included because of the salt storage and handling in Outfall 002.
The requirement to submit an Annual Report is included.
The requirement for routine inspections on a semiannual basis is included.

Antidegradation (93.4):

The applicant is not proposing a new or increased discharge to HQ or EV waters, so Module 1 (Anti Degradation Module) was not required with this application.

The effluent limits for this discharge have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. Best Management Practices will ensure that the existing instream uses are protected. No Exceptional Value Waters are impacted by this discharge.

The designated use of the receiving waters are as follows:
UNT to Mud Run (WWF, MF)

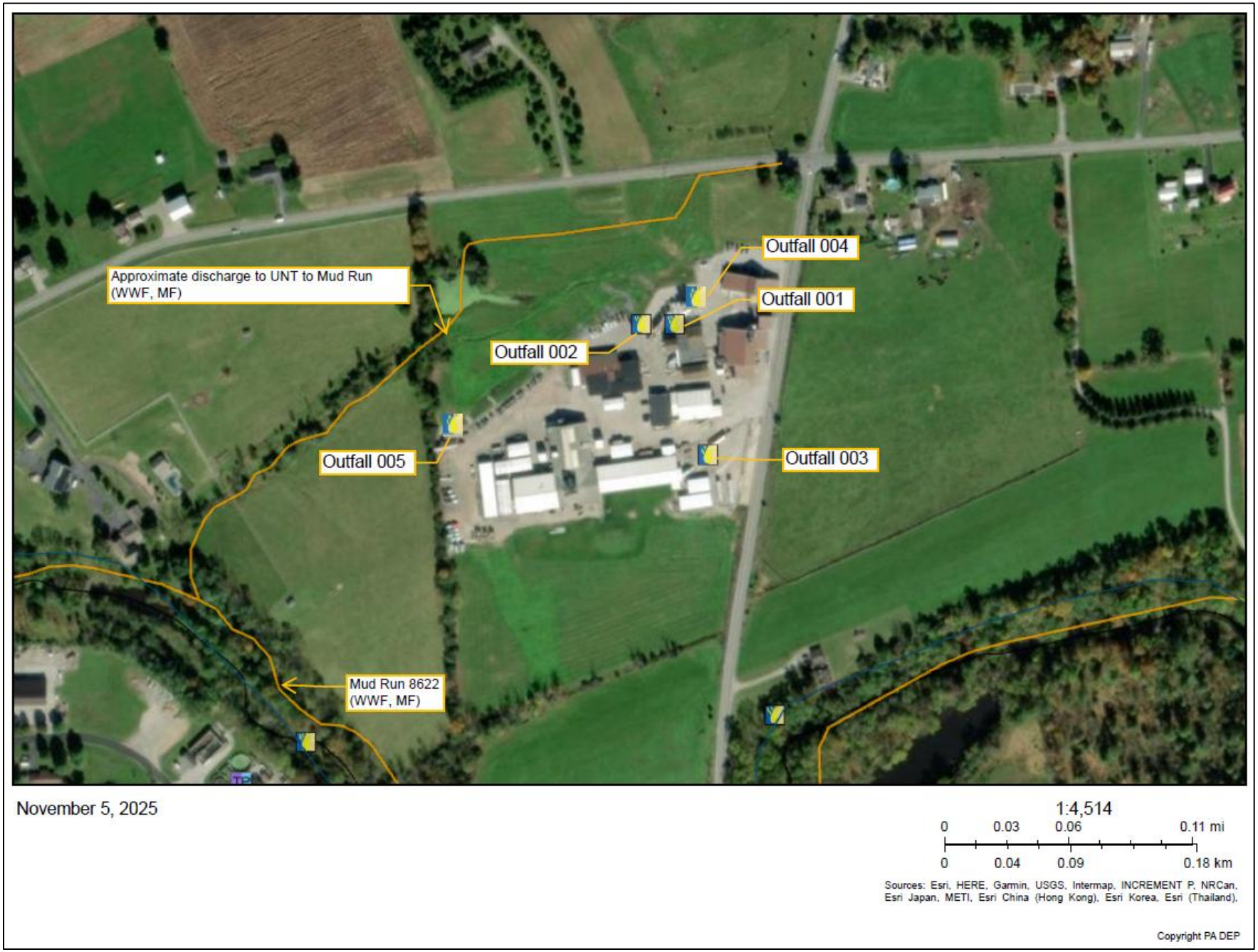

Figure 1. eMapPA Printout

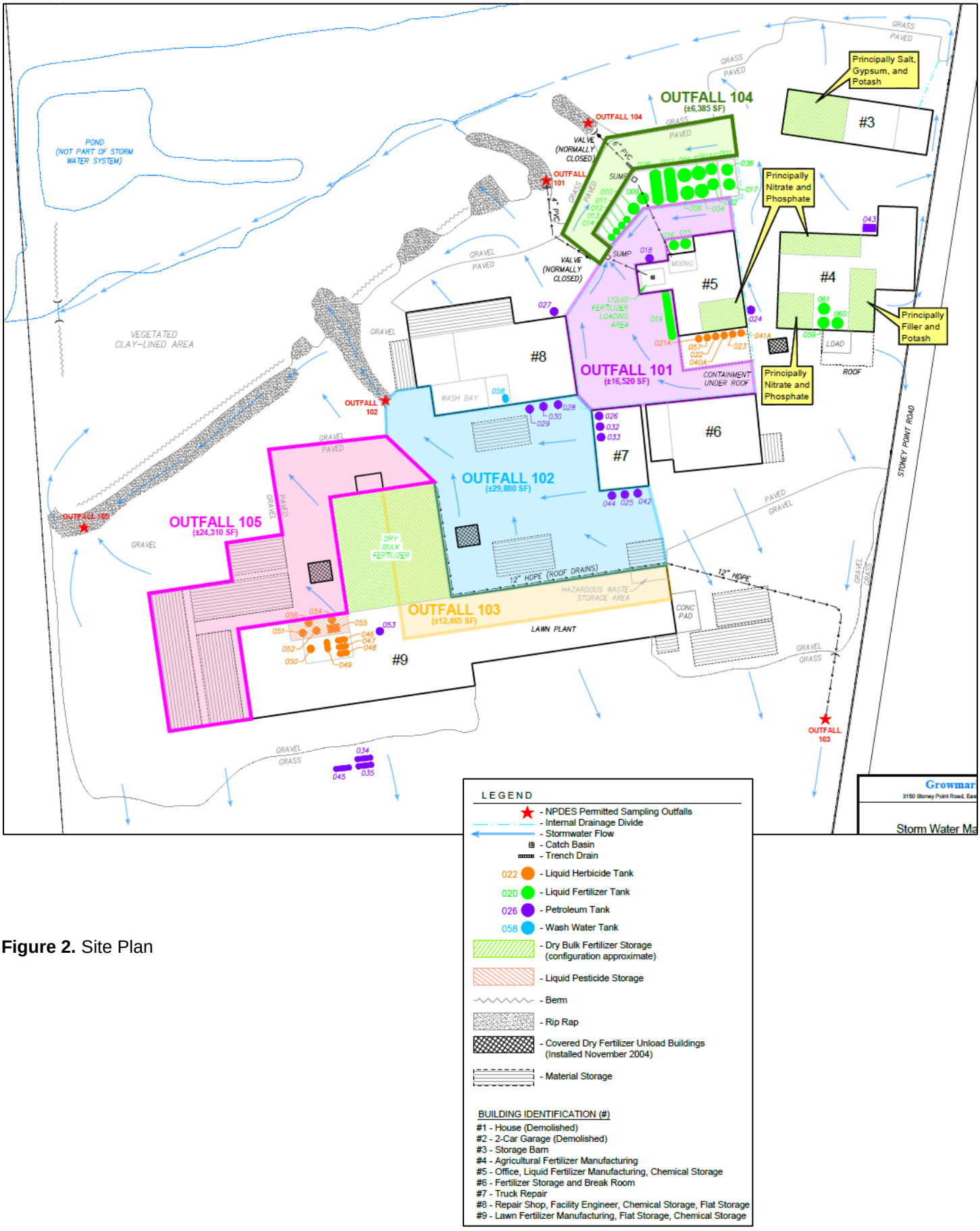

Figure 2. Site Plan

ATTACHMENT A

CORRECTIVE ACTION PLAN (CAP) AND EXPLANATION OF HIGH SAMPLE RESULTS

verdantas

2550 Interstate Drive, Suite 303
Harrisburg, PA 17110
717-652-6832

October 14, 2025

Jacob S. Rakowsky
Clean Water Program
Department of Environmental Protection
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110

Re: Corrective Action Plan for Growmark FS East Berlin Facility
NPDES Permit No. 0087891
3150 Stoney Point Road, East Berlin, PA 17316

Dear Mr. Rakowsky,

This Corrective Action Plan (CAP) describes actions Growmark FS has taken and intends to take to address benchmark value exceedances of Total Suspended Solids (TSS) in stormwater at their facility located in East Berlin, PA. As described in National Pollution Discharge Elimination System (NPDES) Permit No. 0087891, this CAP is triggered by TSS benchmark value exceedances for two consecutive monitoring periods at Outfalls 101 and 103. Historical sampling results show that TSS concentrations exceeded benchmark values in stormwater samples collected from Outfall 101 in several consecutive quarters (ending in the second quarter of 2022) and from Outfall 103 in the first and second quarters of 2024.

A review of the sampling procedures suggests that TSS concentrations in stormwater from Outfalls 101 and 103 are likely biased high due to the placement of the autosampler intake tubing at the ground surface. This conclusion is supported by decreased TSS concentrations following modifications made at Outfall 101 between early- and mid-2022. The modifications allow for the collection of representative samples from the Outfall 101 discharge pipe rather than the ground surface. Since the modification was made, TSS concentrations in samples collected from Outfall 101 have not exceeded benchmark values in consecutive monitoring periods. Growmark FS will modify the Outfall 103 discharge pipe in a similar manner to eliminate the collection of stormwater samples from the ground surface.

Growmark FS proposes these sampling procedure modifications to satisfy the requirements of a CAP and will continue to monitor TSS concentrations in stormwater samples to determine if additional corrective actions are necessary.

If you have any questions concerning this plan, please do not hesitate to contact us.

Scott R Morgan
Senior Scientist
smorgan@verdantas.com
717-580-9113

CC:
Bradley Legg, via email
Mike Parr, via email

Outlook

[External] Growmark FS East Berlin NPDES Outfall Sampling Summary

From Scott Morgan <smorgan@verdantas.com>
Date Wed 10/29/2025 4:45 PM
To Rakowsky, Jacob <jrakowsky@pa.gov>
Cc Legg, Bradley <blegg@growmark.com>; Parr, Mike (Growmark FS) <mparr@growmarkfs.com> (mparr@growmarkfs.com) <mparr@growmarkfs.com>

2 attachments (161 KB)
Growmark FS NPDES Data_8Qs.pdf; Growmark FS NPDES Data_Comparison.pdf;

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Jacob,

As requested, we are providing you with a summary of our recent call regarding stormwater sampling results (particularly atrazine and total nitrogen) for the Growmark FS (Growmark) site in East Berlin, PA. As discussed, we identified several instances where atrazine concentrations were transcribed from laboratory reports to data tables (and eDMRs) without adjusting values from ug/l to mg/l. For example, in the permit renewal application the maximum atrazine concentration in stormwater from Outfall 102 was identified as 22.30 mg/l whereas the actual atrazine concentration in the sample was 22.30 ug/l, or 0.0223 mg/l. Also, as we discussed, the permit renewal application captures sample results for more than 20 years, resulting in concentrations that are not representative of current conditions. For example, the maximum concentration for total nitrogen in stormwater from Outfall 102 (4,140 mg/l) was in a sample collected in September 2005. For comparison, the maximum detected total nitrogen concentration in the most recent eight quarters of stormwater samples collected from Outfall 102 is 60.9 mg/l; note that a sample collected during this time did have a non-detect concentration of 70.0 mg/l.

Also as requested, we have attached a table summarizing the last eight quarters of outfall sample results from each of the three outfalls. We have also attached a table that compares the average and maximum concentrations from these eight quarters to the historical average and maximum concentrations presented in the permit renewal application. As you can see from the second table, for Outfalls 101 and 102, most of the recent average concentrations are much lower than the average concentrations in the permit renewal package and all the recent maximum concentrations are significantly lower. Regarding Outfall 103, as discussed in the recently submitted Corrective Action Plan (CAP), Gowmark proposed in the CAP to modify the sampling procedures so that more representative samples of stormwater discharged from the site are obtained as it is believed that the sample results are biased high due to the samples being collected from the ground surface.

Please let us know if you have any questions.

Thanks,
Scott

Growmark FS East Berlin, PA Facility
Most Recent Eight Quarters of Reported NPDES Outfall Sample Results

Outfall	Sample Date	Reporting Period		pH	Total Nitrogen	Total Phosphorus	Atrazine	Total Suspended
		From	To	(S.U)	(mg/l)	(mg/l)	(mg/l)	Solids (mg/l)
101	8/25/2023	7/1/2023	9/30/2023	7.08	207	7.0	0.18	33
	11/21/2023	10/1/2023	12/31/2023	6.87	309	8.7	1.11	47
	1/25/2024	1/1/2024	3/31/2024	6.90	10.9	3.4	0.186	60
	4/12/2024	4/1/2024	6/30/2024	6.64	85.6	8.8	0.0289	83
	9/22/2024	7/1/2024	9/30/2024	6.60	51.4	7.1	0.0445	39
	11/20/2024	10/1/2024	12/31/2024	8.75	88.5	5.5	0.643	63
	3/5/2025	1/1/2025	3/31/2025	7.58	428	13.4	0.145	100
	6/30/2025	4/1/2025	6/30/2025	6.42	183	4.9	0.0361	214
			Average:	7.11	170	7.4	0.297	80
			Maximum:	8.75	428	13.4	1.11	214

Outfall	Sample Date	Reporting Period		pH	Total Nitrogen	Total Phosphorus	Atrazine	Total Suspended
		From	To	(S.U)	(mg/l)	(mg/l)	(mg/l)	Solids (mg/l)
102	8/25/23	7/1/23	9/30/23	7.45	9.39	1.9	0.011	63
	11/21/23	10/1/23	12/31/23	7.78	16.6	4.7	0.011	37
	1/25/24	1/1/24	3/31/24	6.87	<70	1.2	0.0035	420
	4/12/24	4/1/24	6/30/24	6.98	3.09	0.85	0.003	60
	9/22/24	7/1/24	9/30/24	6.82	60.9	5.8	0.0018	87
	11/20/24	10/1/24	12/31/24	7.82	4.32	1.4	0.0015	46
	3/5/25	1/1/25	3/31/25	7.21	21	2.7	0.0044	150
	6/30/25	4/1/25	6/30/25	6.84	15.3	0.44	0.0074	97
			Average:	7.22	<25.1	2.4	0.005	120
			Maximum:	7.82	<70	5.8	0.011	420

Outfall	Sample Date	Reporting Period		pH	Total Nitrogen	Total Phosphorus	Total Suspended
		From	To	(S.U)	(mg/l)	(mg/l)	Solids (mg/l)
103	8/25/2023	7/1/2023	9/30/2023	8.30	16.7	0.37	91
	11/21/2023	10/1/2023	12/31/2023	6.62	3.14	0.09	<5
	1/25/2024	1/1/2024	3/31/2024	7.56	19.9	1.7	1250
	4/12/2024	4/1/2024	6/30/2024	6.84	21.4	0.092	236
	9/22/2024	7/1/2024	9/30/2024	7.57	1270	920	79
	11/20/2024	10/1/2024	12/31/2024	6.80	14.2	<5.0	<5
	3/5/2025	1/1/2025	3/31/2025	7.97	18.3	0.74	41
	6/30/2025	4/1/2025	6/30/2025	6.67	9.92	0.065	4
			Average:	7.29	172	<116	<214
			Maximum:	8.30	1270	920	1250

Growmark FS East Berlin, PA Facility
Outfall Sampling Result Comparison - Eight Quarters vs Permit Renewal

		Average Concentration		Maximum Concentration	
		8 Quarters	Permit Renewal	8 Quarters	Permit Renewal
Outfall 101	Total Nitrogen	170	262.93	428	5090
	Total Phophorus	7.4	34.64	13.4	878
	Atrazine	0.297	0.23	1.11	3.99
	TSS	80	107.79	214	560
Outfall 102	Total Nitrogen	<25.1	113.44	<70	4140
	Total Phophorus	2.4	17.32	5.8	370
	Atrazine	0.005	0.31	0.011	22.3
	TSS	120	228.58	420	1830
Outfall 103	Total Nitrogen	172	50.5	1270	1270
	Total Phophorus	<116	18.77	920	920
	Atrazine	NA	NA	NA	NA
	TSS	<214	91.9	1250	1250