pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

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

Application Type	**New**	Application No.	**PA0233196**
Facility Type	**Stormwater**	APS ID	**1049629**
Major / Minor	**Minor**	Authorization ID	**1372775**

Applicant and Facility Information

Applicant Name	**A.M. Logging, LLC**	Facility Name	**A.M. Logging Mulch Yard**
Applicant Address	116 Thompson Lane, P.O. Box 436	Facility Address	434 Swartz Road
	Millheim, PA 16854-9617		Lewisburg, PA 17837
Applicant Contact	Mark Byler	Facility Contact	Mark Byler
Applicant Phone	814-349-8089	Facility Phone	814-349-8089
Client ID	344293	Site ID	852641
SIC Code	5191	Municipality	Buffalo Township
SIC Description	Wholesale Trade - Farm Supplies	County	Union
Date Application Received	October 15, 2021	EPA Waived?	Yes
Date Application Accepted	October 29, 2021	If No, Reason	N/A
Purpose of Application	New industrial stormwater permit for existing mulch processing facility under new management.		

Summary of Review

INTRODUCTION

Mark Byler, General Manager, has submitted an NPDES permit application for industrial stormwater runoff from a mulch processing facility in Buffalo Township, Union County.

APPLICATION

Mark Byler, the General Manager of A.M. Logging, LLC, has submitted the *NPDES Application for Individual Permit to Discharge Industrial Stormwater* (DEP #3800-PM-BCW0403b). This application was received by the Department on October 15, 2021 and considered administratively complete on October 29, 2021. Byler is both the client and site contact for this application. His additional contact information is (email) mark@amlogging.com. The engineering consultant is Jason Bukeavich, PG, Project Manager with RETTEW Associates, Inc, of Williamsport, PA. His contact information is (phone) 570-244-3570 and (email) jbukeavich@rettew.com.

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.

The case file, permit application package and draft permit will be available for public review at the Department's Northcentral Regional Office. The address for this office is 208 West Third Street, Williamsport, PA 17701. An appointment can be made to review these materials during the comment period by calling the file coordinator at 570-327-3636.

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Approve	Deny	Signatures	Date
X		Jeffrey J. Gocek, EIT — Project Manager	04/13/2022
X		Nicholas W. Hartranft, PE — Environmental Engineer Manager	04/13/2022

COMPLIANCE HISTORY

The WMS Query Open Violations for Client by Permit Number revealed no unresolved violations for AM Logging, LLC.

The following is historical data for Outfall 002 under a previous NPDES permit at this site.

Parameter	2017 – 2	2018 – 1	2018 – 2	2019 – 1	2019 – 2	2020 – 1	2020 – 2	2021 – 1	2021 - 2
Total Arsenic	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01		E	< 0.005	< 0.02
COD	50.9	44.7	32.7	30.5	73.1		E	47.7	47.3
Total Chromium	< 0.01	< 0.01	< 0.01	< 0.01	0.012		E	0.013	0.0084
Total Copper	< 0.005	< 0.005	< 0.005	< 0.005	0.014		E	0.0058	0.011
Pentachlorophenol	< 0.0241	< 0.0333	< 0.0247	< 0.0333	5.0		E	< 2.7	< 2.5
pH	7.74	7.49	7.92	7.86	7.38		E	7.0	7.8
TSS	< 5	10.0	5.0	8.0	28		E	70	156

The last Department inspection at this site, a Compliance Evaluation Inspection (CEI), was conducted February 09, 2021. Exceedances for TSS were documented at Outfalls 001 and 003 for the second half of 2020. Further implementation of Best Management Plans (BMPs) was recommended by the Department to abate TSS issues.

SITE BACKGROUND

In December 2008, the Department and Kuhns Brothers Lumber entered into a *Consent Order & Agreement (COA)* for violations documented by inspections conducted in March and April 2008. The March 2008 inspection was the result of a complaint received describing the unlawful discharge of industrial waste to the nearby Unnamed Tributary to Spruce Run, which is protected for High-Quality Cold-Water Fishes (HQ-CWF). The March 2008 inspection documented two separate instances of black leachate from the mulch pile overflowing from two different containment ponds to the Unnamed Tributary to Spruce Run. The inspection also documented the discharge of lumber kiln condensate and boiler blowdown from the kiln drying operation to the Unnamed Tributary to Spruce Run. Additional mulch leachate discharges were documented in the April 2008 inspection. Also, in April 2008, two benthic macroinvertebrate surveys were conducted on the Unnamed Tributary to Spruce Run and concluded that the degradation of the high-quality stream was caused by the contaminated industrial and stormwater discharges from the site. A WQM permit was issued in 2011 to Kuhns Brothers Lumber for the construction of a new leachate storage impoundment. Despite being required by the COA, the impoundment was never constructed due to financial constraints.

NPDES PERMIT BACKGROUND

The first permit, #PAS224804, was issued to Kuhns Brothers Lumber in 2011 to regulate industrial stormwater discharges leaving the site. The permit was renewed in 2017.

INDUSTRIAL ACTIVITY

Site Operations

Operations at the facility consist of hardwood and softwood bark grinding, mulch color dying, spraying, water recirculation, mulch leachate management,mulch storage, loading and transportation. A concrete pad will be constructed for the storage and sale of the finished mulch product. The site will have three main sections: lumber storage area, mulch manufacturing area and the finished mulch storage area. In the mulch manufacturing area, both hardwood and softwood will be bark grinded to produce mulch and water will be sprayed to maintain a desired moisture content in the wood chips. Coloring of some mulch will also occur in the mulch manufacturing area.

See Attachment 01 for a map of the site location. See Attachment 02 for a site plan of the improved site.

Leachate

Mulch leachate is generated from water that runs off or through the mulch storage piles. Contaminated runoff from the hardwood mulch areas will be conveyed with concrete-lined swales and piping to the improved leachate storage impoundment. Leachate captured in the impoundment will be recirculated, as needed, back to the wood chip storage piles to maintain a 40 to 50% moisture content. The water will be recirculated with a pump station, force main, hydrants and movable spray guns. The force main will be a two-inch SDR 20 pipe. The pump station will provide 100 gallons per minute (gpm) with a pressure of 80 pounds per square inch (psi). The mobile spray guns will allow for a complete wetting of the wood chip storage piles.

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Impoundment

To handle the increased production and prevent discharge, improvements to the existing leachate storage impoundment have been proposed. The design of the improved impoundment meets the requirements of 25 PA § 289 Subchapter E. The proposed lined leachate impoundment will increase storage capacity for the planned facility expansion and has been designed to capture the entirety of runoff generated by a 100-year storm event. The impoundment internal embankments shall be constructed at the required side slope of 3:1. The impoundment will utilize a 30 mil PVC liner between two layers of geotextile. Stone will be placed over the entirety of the liner for protection. A minimum of two-foot freeboard will be provided at the highwater elevation for a 50-year storm. The basin will have a wide bottom to store approximately one foot of sediment storage (to the clean-out elevation). The normal operating level is designed to contain a two-year, 24-hour runoff event volume above the minimum level/cleanout level (below the high-water level alarm). At the normal operating water elevation, approximately 58,524 cubic feet of storage will be provided (437,789 gallons). At the maximum water elevation, approximately 297,861 cubic feet of storage will be provided (2,228,155 gallons). An emergency spillway will be provided for potential overflow. Any overflow will be directed to a stormwater swale adjacent to the primary access road. From there, personnel will capture and temporarily contain the overflow in storage tanks or tanker trucks, until it can be safely added back to the impoundment.

There will be no discharge of leachate from the leachate storage impoundment to the waters of the Commonwealth. The impoundment will have a leak detection port, which will indicate damage to the liner. This port will be observed weekly.

STORMWATER MANAGEMENT

The only runoff not routed to the leachate storage impoundment will come from the lumber storage and staging area. Uncontaminated runoff from this area will discharge to the Unnamed Tributary to Spruce Run through the existing Outfall 002. This outfall was permitted in the NPDES permit issued to Kuhns Brothers Lumber in 2017. Outfall 002 is located at latitude 41° 00' 45.5" and longitude -76° 59' 45.8". The runoff reaches the receiving stream at approximately river mile 0.95. This outfall drains 173,804 square feet with no impervious areas.

A $Q_{7,10}$ flow for the receiving stream was not calculated since no modeling is performed for intermittent discharges of precipitation and/or runoff.

See Attachment 03 for Outfall 002 Runoff Direction.

RECEIVING STREAM

Stream Characteristics

The nearest surface water, Unnamed Tributary to Spruce Run, will receive any uncontaminated runoff from the industrial site. According to 25 PA § 93.9L, this stream is protected for *High-Quality Cold-Water Fishes* (HQ-CWF) and *Migratory Fishes* (MF). These are the streams *Designated Uses*, which is defined in 25 PA § 93.1 as "those uses specified in §§ 93.9a – 93.9z for each waterbody or segment whether or not the use is being attained". Designated uses are regulations promulgated by the Environmental Quality Board (EQB) throughout the rulemaking process. This stream currently has no *Existing Use*, which is defined in 25 PA § 93.1 as "those uses actually attained in the waterbody on or after November 28, 1975 whether or not they are included in the water quality standards".

The receiving stream is attaining its designated uses for recreation and aquatic life. This stream is identified by Department stream code 18981 and is located in State Water Plan watershed 10C (Buffalo and White Deer Creeks).

Downstream Potable Water Intake

The nearest downstream public water supply intake is the Sunbury Municipal Authority at Sunbury, PA, located 21 river miles downstream on the Susquehanna River.

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ANTI-DEGRADATION BACKGROUND

40 CFR §§ 131.12 and 131.32 require Pennsylvania (PA) to adopt an anti-degradation policy and include this policy as a required element of the surface water quality standards program. According to the Department's "Water Quality Anti-Degradation Implementation Guidance" (#391-0300-002), it is the Department's policy to protect the existing uses of all surface waters and the existing quality of High Quality (HQ) and Exceptional Value (EV) waters. The basic concept of anti-degradation is to promote the maintenance and protection of existing water quality for High Quality (HQ) and Exceptional Value (EV) waters, and protection of existing uses for all surface waters because it recognizes that existing water quality and uses have inherent value worthy of protection and preservation. As a required element of PA's water quality standards, the Anti-Degradation (Antideg) program introduces levels of protection for deserving waterbodies above the basic standards. The exception occurs, in the case of HQ waters, when the Department finds (after satisfaction of intergovernmental coordination and public participation requirements) that allowing a lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.

The existing uses are protected when the Department makes a final decision on any permit or approval for an activity that may affect a protected use. The existing uses are also protected based on the Department's evaluation of the best available information that indicates the protected use of a waterbody. For new, additional or increased point source discharges to an HQ or EV water, the person proposing the discharge is required to utilize a nondischarge alternative that is both cost-effective and environmentally sound when compared with the cost of the proposed discharge. If a nondischarge alternative is not cost effective and environmentally sound, the person must use the best available combination of treatment, pollution prevention and wastewater reuse technologies to assure that any discharge is non-degrading. This process, known as the Anti-Degradation Best Available Combination of Technologies (ABACT) analysis, establishes a minimum level of performance for dischargers in HQ or EV waters based on the more stringent of water quality-based effluent limits (WQBELs) or ABACT.

ANTI-DEGRADATION ANALYSIS

Watershed

As indicated above, the nearby watershed is protected for High Quality-Cold Water Fishes and Migratory Fishes.

Wastewater/Stormwater

No process wastewater will be discharged from this industrial site. This permit will authorize the discharge of uncontaminated runoff.

Alternatives Analysis

Non-discharge alternatives were evaluated as part of the application. The following alternative were considered infeasible.

1. The land application of stormwater would be infeasible since it would require the construction of a system more elaborate than the one currently in place. No historical effluent concerns were identified at Outfall 002.
2. The recycle and reuse of stormwater which discharges to Outfall 002 would be infeasible since the site already plans to capture leachate and contaminated runoff and convey both to the impoundment for reuse and no historical effluent concerns were identified at Outfall 002.
3. The construction of treatment wetlands would be infeasible since the runoff already discharges to a vegetated detention area prior to the receiving stream and no historical effluent concerns were identified at Outfall 002.

Best Management Practices

AM Logging considers the zero discharge of stormwater to be both infeasible and cost prohibitive, as described above. AM Logging will utilize the following BMPs for the management of stormwater.

1. Storage Impoundment for leachate and contaminated runoff.
2. Runoff and leachate will be conveyed to the impoundment via impervious swales and piping.
3. A Preparedness, Prevention and Contingency (PPC) Plan will be implemented at the site. See below.
4. Various industrial BMPs, described in the above PPC Plan, will also be implemented at the site.

ABACT Approval

An ABACT approval was made in 2011 for the NPDES permit but not documented as part of the Fact Sheet (at that time). The Department considers the above BMPs and the stormwater and leachate conveyance and storage impoundment acceptable and constitute ABACT for the protection of the Unnamed Tributary to Spruce Creek.

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PREPAREDNESS, PREVENTION AND CONTINGENCY PLAN

A Preparedness, Prevention and Contingency (PPC) Plan for this site was submitted with the *NPDES Application for Individual Permit to Discharge Industrial Stormwater*. This plan is dated September 2021.

The BMPs detailed in the PPC Plan are material/waste inventory, pre-release planning, inspection/monitoring program, preventative maintenance, housekeeping program, security, external factor planning, and employee training.

DEVELOPMENT OF STORMWATER MONITORING

Studies have shown that mulch leachate is acidic, nutrient poor, toxic to aquatic life and has very high oxygen demand. Mulch leachate contains BOD, COD and TSS in concentrations comparable to untreated domestic wastewater.

The following monitoring requirements were developed as Appendix D of the Department's *Authorization to Discharge Under the NPDES General Permit for Discharges of Stormwater Associated with Industrial Activity* (PAG-03). This appendix identified pollutants associated with various Timber Products industries.

Timber Products facilities which use chlorophenolic formulations must monitor for Penatchlorophenol. For all other facilities, the monitoring of Pentachlorophenol is optional. Facilities, which use chromium, copper and/or arsenic formulations, must monitor for Total Arsenic, Total Chromium and Total Copper. For all other facilities, the monitoring of Total Arsenic, Total Chromium and Total Copper is optional. If monitoring is not conducted, the permittee shall use a No Discharge Indicator (NODI) on the DMR in lieu of sample data.

Since the Department is unsure of where the wood will come from to produce mulch, all the below pollutants will be monitored in this permit. After two years of sample data, AM Logging may request a permit amendment to remove parameters which are not relevant to this operation.

Parameter	Monitoring Requirements		Benchmark Values
	Minimum Measurement Frequency	Sample Type	
pH (SU)	1/6 months	Grab	XXX
Chemical Oxygen Demand (mg/L)	1/6 months	Grab	120
Total Suspended Solids (mg/L)	1/6 months	Grab	100
Pentachlorophenol (mg/L)	1/6 months	Grab	XXX
Total Arsenic (mg/L)	1/6 months	Grab	XXX
Total Chromium (mg/L)	1/6 months	Grab	XXX
Total Copper (mg/L)	1/6 months	Grab	XXX

Benchmark values are not effluent limitations. They represent the threshold concentration for the determination of whether existing site BMPs are effective in controlling or preventing stormwater pollution. Two consecutive monitoring period exceedances will require the permittee to develop and submit a corrective action plan (CAP).

Appendix D also specifies sector-specific BMPs. These will be included in the permit as part of a special condition. In addition to the monitoring requirements, an annual inspection will be required by the Department's stormwater requirements.

STANDARD OPERATING PROCEDURES

The review of this application was in accordance with the Department's *Standard Operating Procedure (SOP) for Clean Water Program Establishing Effluent Limitations for Individual Industrial Permits* (SOP #BPNPSM-PMT-032) and the *SOP for Clean Water Program New and Reissuance Industrial Waste and Industrial Stormwater Individual NPDES Permit Applications* (SOP #BPNPSM-PMT-001).

PROPOSED SUPPLEMENTAL DISCHARGE MONITORING REPORTS

Annual Inspection Form for NPDES Permits for Discharges of Stormwater Associated with Industrial Activities
Daily Effluent Monitoring Report Form
Lab Accreditation Form
Non-Compliance Reporting Form

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WATER QUALITY MANAGEMENT PERMIT

A Water Quality Management (WQM) permit application is currently under review by the Department. The following plans were submitted as part of the application for upgrades to the existing leachate storage impoundment at the site. These plans will be enforced as part of the WQM permit.

Groundwater Monitoring Plan

An existing up-gradient well and three proposed down-gradient monitoring wells will be used to evaluate the groundwater quality at this site. A Groundwater Monitoring Plan has been included with this application. Prior to operation of the upgraded leachate storage impoundment, AM Logging will sample all four wells quarterly for the following parameters: Total Suspended Solids (TSS), Total Dissolved Solids (TDS), and Chemical Oxygen Demand (COD). Action levels of 15 mg/L COD and 31 mg/L TSS will be included in the permit. Exceedances of these levels will require resampling and Department notification if the resample also violates these action levels.

Leachate Management Plan

The leachate and contaminated runoff will be managed by confirming that grading of the property to collect and convey leachate to the impoundment, maintaining the grading to prevent contamination of stormwater runoff, managing the impoundment to provide containment and adequate storage for the design storm, reuse the collected leachate in mulch production, maintain the impoundment storage with a solids monitoring and removal program, develop a leachate contingency plan for hauling leachate off-site and utilize the proposed Groundwater Monitoring Plan (see above).

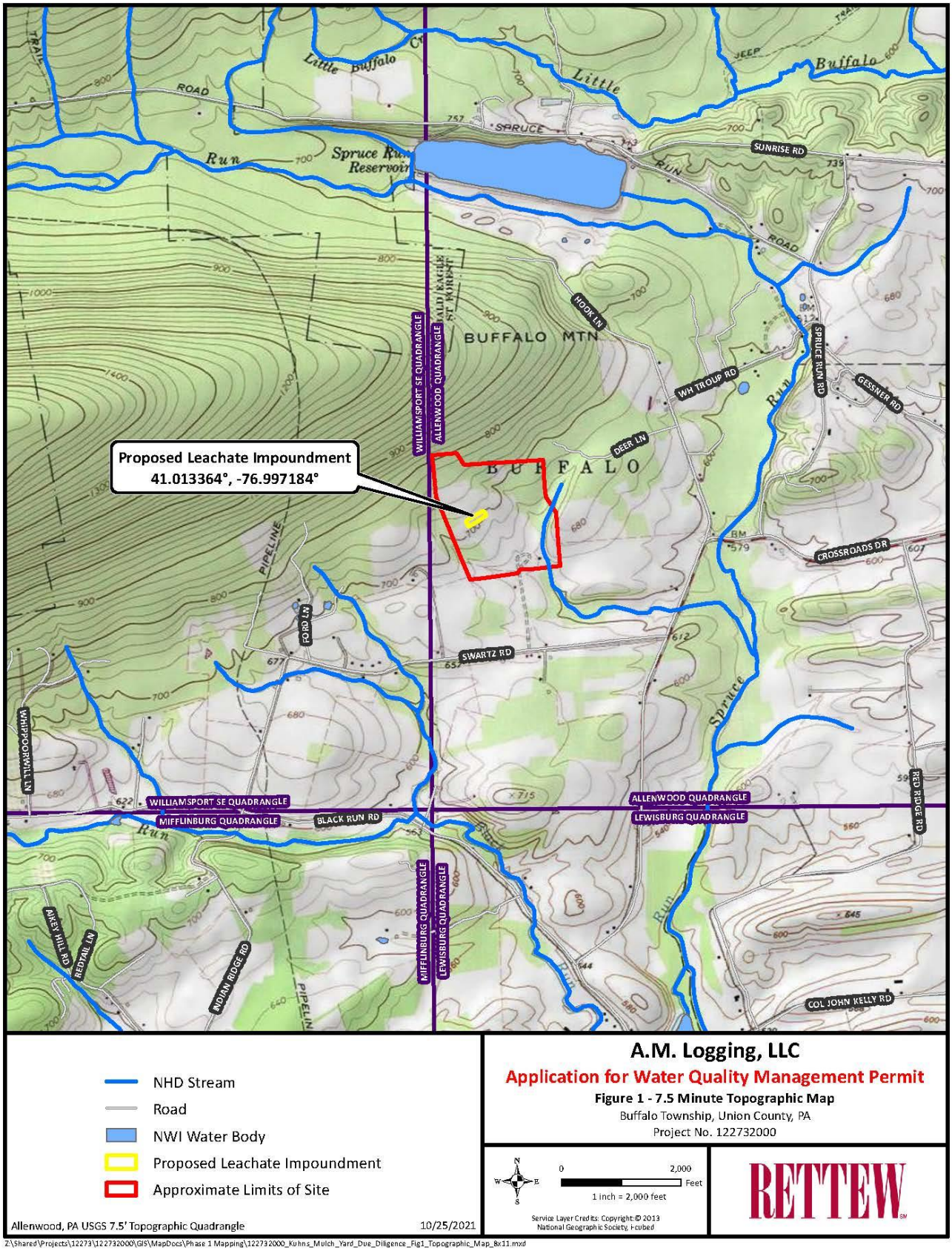
PROPOSED STORMWATER MONITORING REQUIREMENTS

Outfall 002 - Effective Period: Permit Effective Date through Permit Expiration Date

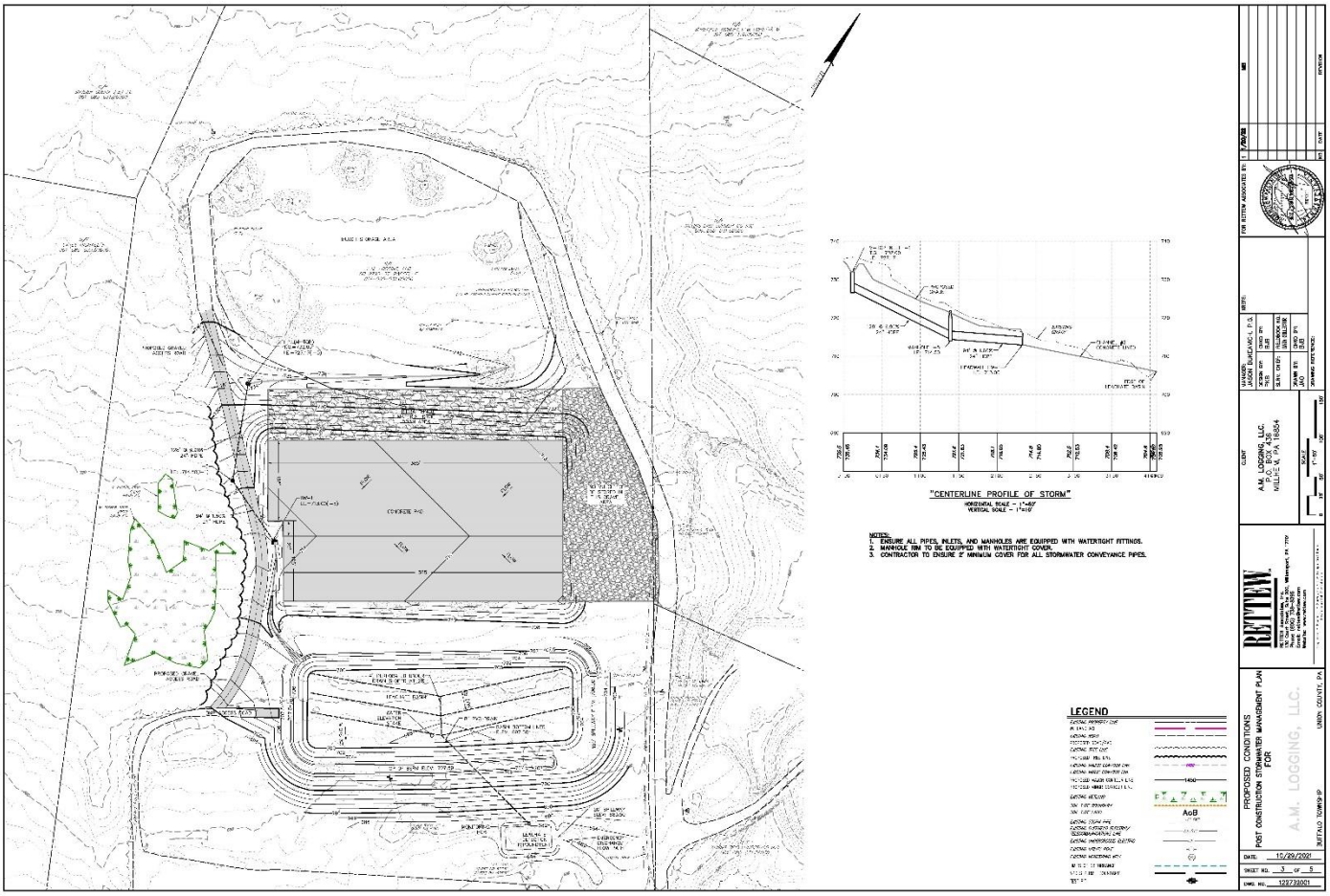
Discharge Parameter	Mass Limits (lb/day)		Concentration Limits in mg/L, unless noted				Monitoring Requirements	
	Monthly Average	Daily Maximum	Minimum	Monthly Average	Daily Maximum	IMAX	Minimum Measurement Frequency	Required Sample Type
pH (SU)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Chemical Oxygen Demand (mg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Suspended Solids (mg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Pentachlorophenol (mg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Arsenic (mg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Chromium (mg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Copper (mg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

END of Fact Sheet.

ATTACHMENT 01



ATTACHMENT 02



ATTACHMENT 03