pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0228044**
Facility Type	**Non-Municipal**	APS ID	**1019371**
Major / Minor	**Minor**	Authorization ID	**1319759**

Applicant and Facility Information

Applicant Name	**WJM Services, Inc.**	Facility Name	**Bradford Heights MHP**
Applicant Address	PO Box 78	Facility Address	Bradford Drive
	Woodland, PA 16881-0078		Woodland, PA 16881
Applicant Contact	William Miller	Facility Contact	Mike Hoover, Operator
Applicant Phone	(570) 617-1351	Facility Phone	(814) 7616-0322
Client ID	256393	Site ID	495463
Ch 94 Load Status	Not Overloaded	Municipality	Bradford Township
Connection Status	**N/A**	County	Clearfield
Date Application Received	July 7, 2020	EPA Waived?	Yes
Date Application Accepted	July 20, 2020	If No, Reason	

Purpose of Application: Renewal of a NPDES permit for the discharge of treatment sewage

Summary of Review

The subject facility is a wastewater treatment plant serving the Bradford Heights Mobile Home Park.

A map of the discharge location is attached.

Sludge use and disposal description and location(s): Sludge is disposed at other WWTPs for further processing.

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.

Approve	Deny	Signatures	Date
✓		*Keith C. Allison* Keith C. Allison / Project Manager	April 7, 2021
✓		*Nicholas W. Hartranft* Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	April 12, 2021

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.027
Latitude	41º 1' 21.63"	Longitude	-78º 21' 48.02"
Quad Name	Lecontes Mills, PA	Quad Code	1019
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Abes Run (CWF)	Stream Code	26106
NHD Com ID	61830299	RMI	0.95
Drainage Area	0.33 mi^2	Yield (cfs/mi^2)	0.0297
Q_{7-10} Flow (cfs)	0.0098	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1460	Slope (ft/ft)	Undetermined
Watershed No.	8-C	Chapter 93 Class.	CWF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	METALS, PH		
Source(s) of Impairment	ACID MINE DRAINAGE		
TMDL Status	Pending	Name	
Nearest Downstream Public Water Supply Intake	Shawville Generating Station		
PWS Waters	West Branch Susquehanna River	Distance from Outfall (mi)	Approx. 5

Changes Since Last Permit Issuance: None. The above stream and drainage characteristics were determined for the previous review and remain adequate.

Other Comments: The discharge is to an AMD-impaired watershed as noted above. In addition, the discharge is to an intermittent stream to the Unnamed Tributary to Abes Run with noted AMD impacts.

No downstream water supply is expected to be affected by the discharge with the limitations and monitoring proposed.

Treatment Facility Summary

Treatment Facility Name: Bradford Heights MHP

WQM Permit No.	Issuance Date
1798410	Transfer – 2/4/10 Transfer – 4/26/04 Issued – 12/17/98

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Hypochlorite	0.027

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.027	62	Not Overloaded	Anaerobic Digestion	Other WWTP

Changes Since Last Permit Issuance: None

Other Comments: The treatment facility, approved by WQM permit No. 1798410, includes bar screens, flow equalization, aeration tank, clarifier, tablet chlorination with contact tank, and aerobic digester.

Compliance History

DMR Data for Outfall 001 (from March 1, 2020 to February 28, 2021)

Parameter	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20
Flow (MGD) Average Monthly	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Flow (MGD) Daily Maximum	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
pH (S.U.) Minimum	6.2	6.1	6.2	6.2	6.3	6.3	6.4	6.2	6.4	6.3	6.3	5.8
pH (S.U.) Maximum	6.5	6.5	6.7	6.6	6.6	6.8	6.7	6.7	6.8	7.0	6.6	7.1
DO (mg/L) Minimum	7.5	7.2	7.1	7	7.2	7.4	7.3	7	7.2	6.8	6.7	7.0
TRC (mg/L) Average Monthly	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
TRC (mg/L) Instantaneous Maximum	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.5	0.4	0.3	0.4
CBOD5 (mg/L) Average Monthly	8	8	7	7	7	3	< 3	< 2	3	4	3	9
TSS (mg/L) Average Monthly	7	6	7	12	5	3	< 8	< 5	4	10	4	4
Fecal Coliform (CFU/100 ml) Geometric Mean	< 1	1	1	1	1	2	< 1	< 1	1	1	3	1
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	1	1	1	1	1	3.1	< 1	1	1	1	6.3	1
Ammonia (lbs/day) Average Monthly	0.02	0.02	0.02	0.2	0.02	0.03	0.003	0.02	0.02	0.02	0.3	0.3
Ammonia (mg/L) Average Monthly	0.4	0.41	0.4	3.6	0.44	0.71	0.06	0.36	0.52	0.44	6.3	6.9

Compliance History, Cont'd

Effluent Violations for Outfall 001, from: March 1, 2020 to February 28, 2021

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
pH	03/31/20	Min	5.8	S.U.	6.0	S.U.

Summary of Inspections:	The facility has been inspected periodically by the Department over the past permit term. The most recent inspection on May 18, 2020 noted effluent violations and the failure to submit the renewal application timely.
Other Comments:	A WMS query identified no open violations in eFACTS for WJM Services, Inc.

Existing Effluent Limitations and Monitoring Requirements

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	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/day	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	Report Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30.0	XXX	60	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Total Nitrogen	Report	XXX	XXX	Report	XXX	XXX	1/year	8-Hr Composite
Ammonia	Report	XXX	XXX	Report	XXX	XXX	1/month	8-Hr Composite
Total Phosphorus	Report	XXX	XXX	Report	XXX	XXX	1/year	8-Hr Composite

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.027
Latitude 41º 1' 20.50" **Longitude** -78º 21' 39.80"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Comments: The above limitations are applicable and are included in the existing permit and will remain.

Water Quality-Based Limitations

DO, CBOD5 and NH3-N

The Department uses the WQM7.0 model to evaluate point source discharges of dissolved oxygen (DO), carbonaceous BOD ($CBOD_5$), and ammonia-nitrogen (NH_3-N) into free-flowing streams and rivers. To accomplish this, the model simulates two basic processes: the mixing and degradation of NH_3-N in the stream and the mixing and consumption of DO in the stream due to the degradation of $CBOD_5$ and NH_3-N. No WQM7.0 modeling was performed at this time due to the dry stream discharge and apparent impacts to the receiving stream by AMD pursuant to 25 PA Code §95.5.

Discharge to Dry/Intermittent Stream

Additional requirements in the Department's current Guidance "Implementation Guidance for Evaluating Wastewater Discharges to Drainage Ditches and Swales" (Doc. ID 391-2000-014, April 2008) are not necessary at this time. Due to the facility being existing and because no impacts attributable to the discharge have been noted in the receiving waters the Advanced Treatment Requirements listed in that guidance will not be required of the discharge at this time.

Total Residual Chlorine

No additional modeling has been performed to determine if a more stringent water quality-based limit is necessary due to the dry stream discharge and apparent impacts to the receiving stream by AMD pursuant to 25 PA Code §95.5.

Toxics Management

No further "Reasonable Potential Analysis" was conducted to determine additional toxic parameters for this minor treatment facility with no industrial inflows.

Chesapeake Bay/Nutrient Requirements

According to the Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, this facility is an existing Phase 5 Chesapeake Bay sewage discharger that is not expanding, and as such requires no nutrient loading limits. Annual nutrient monitoring was included in the existing permit per the Phase III Watershed Implementation Plan. The Total Nitrogen was found to average 25.84 mg/L and the Total Phosphorus averaged 4.22 mg/L over the past four years. Therefore,

because the Total Nitrogen and Total Phosphorus in the effluent has adequately been characterized, no further monitoring for these will be required at this time consistent with the Phase III Watershed Implementation Plan.

Best Professional Judgment (BPJ) Limitations

Comments: No additional BPJ limitations are necessary beyond the technology and water quality-based limits noted above.

Anti-Backsliding

No proposed limitations were made less stringent consistent with the anti-degradation requirements of the Clean Water Act and 40 CFR 122.44(l).

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" (362-0400-001), 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 Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/day	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	Report Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30.0	XXX	60	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Ammonia	Report	XXX	XXX	Report	XXX	XXX	1/month	8-Hr Composite

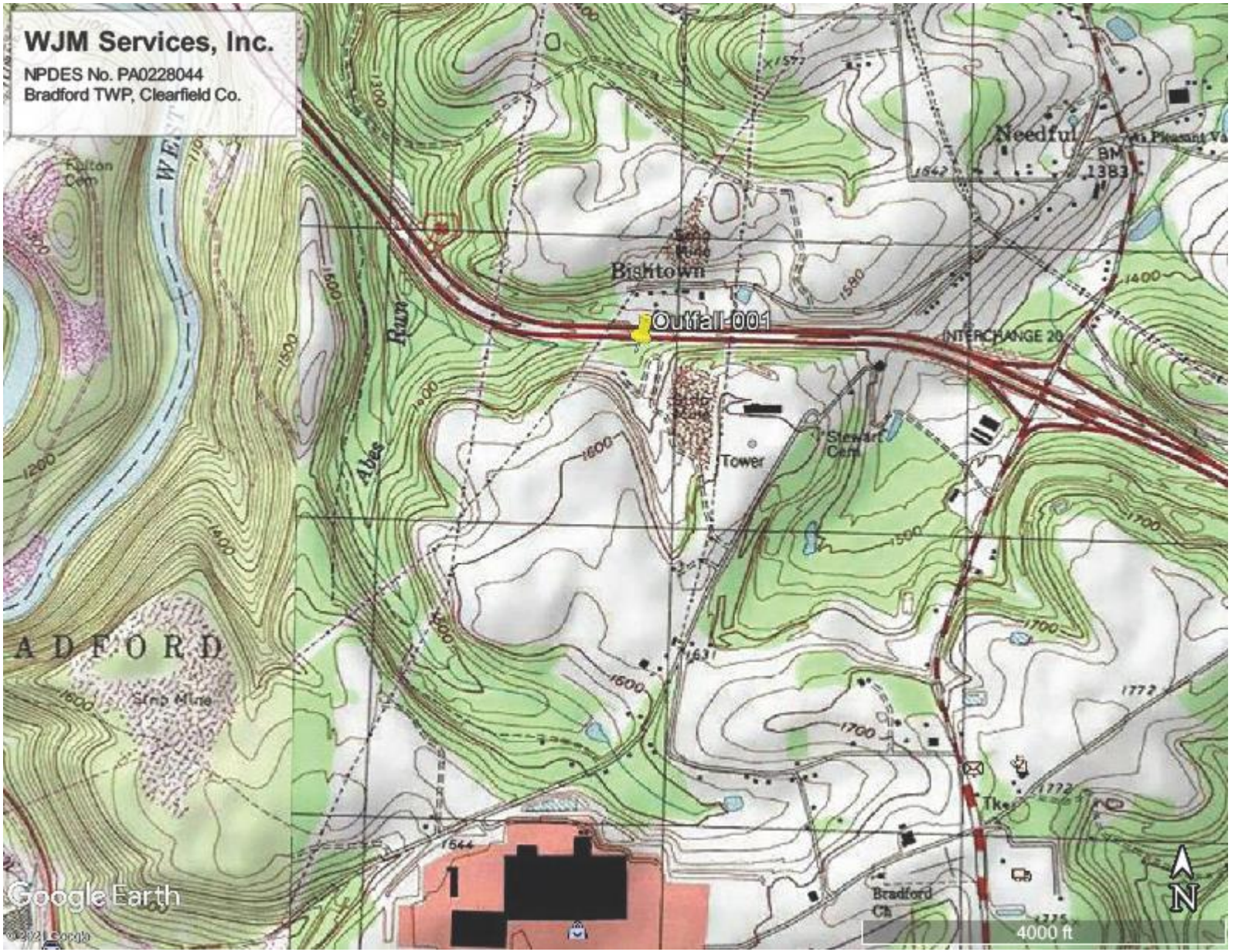
Compliance Sampling Location: Outfall 001

Other Comments: The above limitations and monitoring are unchanged from the existing permit expect for the removal of Total Nitrogen and Total Phosphorus monitoring as noted above.

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☐	Toxics Management Spreadsheet (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☒	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☒	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☒	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 391-2000-022, 3/1999.
☐	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☒	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP: Establishing Effluent Limitations for Individual Sewage Permits, rev. 8/23/13
☐	Other:

Attachment(s)

- Discharge Location Map


WJM Services, Inc.
NPDES No. PA0228044
Bradford TWP, Clearfield Co.
Outfall 001
Bishtown
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INTERCHANGE 20
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Alex Run
Strip Mine
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