pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0232505**
Facility Type	**Municipal**	APS ID	**986216**
Major / Minor	**Minor**	Authorization ID	**1261203**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Brady Township Clearfield County**	Facility Name	**Brady Township STP**
Applicant Address	3906 Shamokin Trail	Facility Address	Station Road
	Luthersburg, PA 15848		Luthersburg, PA 15848
Applicant Contact	Charles Muth, Supervisor Chairman	Facility Contact	Brian Hartzfeld, Supervisor
Applicant Phone	(814) 583-5324	Facility Phone	(814) 583-5324
Client ID	111880	Site ID	779079
Ch 94 Load Status	Not Overloaded	Municipality	Brady Township
Connection Status	No Limitations	County	Clearfield
Date Application Received	February 4, 2019	EPA Waived?	Yes
Date Application Accepted	February 11, 2019	If No, Reason	

Purpose of Application: Renewal of a NPDES Permit.

Summary of Review

The Brady Township facility is a POTW serving the area of the villages of Luthersburg and Salem in Clearfield County. A map of the discharge location is attached.

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 / Project Manager	October 12, 2019
		Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.04
Latitude	41º 3' 33.26"	Longitude	-78º 43' 7.47"
Quad Name	Luthersburg, PA	Quad Code	1016
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Luthersburg Branch	Stream Code	48816
NHD Com ID	123860963	RMI	0.15 @ rec. water 1.76 @ UNT 48816
Drainage Area	0.02 mi^2 @ rec. water 0.2 mi^2 @ UNT 48816	Yield (cfs/mi^2)	Undetermined
Q_{7-10} Flow (cfs)	Undetermined	Q_{7-10} Basis	Undetermined
Elevation (ft)	1730	Slope (ft/ft)	0.06
Watershed No.	17-C	Chapter 93 Class.	CWF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Not Assessed		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status	Final, 04/07/2007	Name	Luthersburg and Labord Branch
Nearest Downstream Public Water Supply Intake	Hawthorn Area Water Authority in Clarion County		
PWS Waters	Redbank Creek	Flow at Intake (cfs)	0.334
PWS RMI	27.8	Distance from Outfall (mi)	Approx. 68

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

Other Comments: The discharge is to an apparent perennially-flowing roadside ditch along Station Road which drains to an unnamed tributary (DEP Stream Code 48816) of Luthersburg Branch. See the attached map. Although the receiving stream does not appear on the USGS topographic maps it is fed by mine drainage seeps. The applicant's former consulting engineer, Sherman Bloom, PE, provided additional information for the previous review by an April 14, 2014 letter indicating that the receiving stream is perennial and showing that it receives substantial flow from an upgradient wetland as well as obvious mine drainage seeps. These conditions were evident in a March 25, 2014 site visit by this reviewer and Bill Bailey, Sewage Planning Specialist. Q_{7-10} Streamflow would be difficult to determine considering the nature of the receiving waters and as a result of the apparent condition of these waters, no water quality-based modeling will be performed. Because the receiving stream has been deemed to be a perennial stream, the requirements of the Department's guidance for discharges to intermittent and dry streams are not applicable.

The discharge is within the watershed of the EPA-approved Luthersburg and Laborde Branch TMDL for impairment due to abandoned mine drainage (AMD). The discharge is not expected to affect the stream impairment and it will not likely receive a waste load allocation if the TMDL is updated. The particular unnamed tributary to Luthersburg Branch that will receive this discharge has not been formally assessed. However, based on observations of the stream the impairment by mine drainage is apparent. The levels of the metals associated with AMD (Aluminum, Iron, and Manganese) in the discharge have not been determined and therefore, annual monitoring will be required for these metals at this time. The discharge has been meeting its pH limitations which are identical to the instream criteria for pH.

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

Treatment Facility Summary				
Treatment Facility Name: Brady Township STP				
WQM Permit No.	**Issuance Date**			
1715401	2/22/16			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary With Total Nitrogen Reduction	Sequencing Batch Reactor	Hypochlorite	0.04
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.04	100	Not Overloaded	Aerobic Digestion	

Other Comments: The treatment process, as approved under WQM Permit No. 1715401 consists of two parallel Sequencing Batch Reactors, chlorination, aerobic digestion and sludge dewatering. Per the post construction certification for WQM Permit No. 1715401, construction was completed on April 11, 2019.

Hauled in Waste

Per the application, the permittee has not accepted any trucked-in waste and does not anticipate receiving any over the next permit term.

Biosolids/Sludge Disposal

The facility has not yet had to dispose of any sludge but it anticipated that it will be disposed at another permitted treatment plant for further processing or a permitted landfill.

Compliance History

DMR Data for Outfall 001 (from October 1, 2018 to September 30, 2019)

Parameter	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18
Flow (MGD) Average Monthly	0.019	0.013	0.012	0.009	0.011							
Flow (MGD) Daily Maximum	0.031	0.018	0.047	0.019	0.032							
pH (S.U.) Minimum	7.95	7.97	8.05	7.8	7.8							
pH (S.U.) Maximum	8.5	8.76	8.56	8.6	8.3							
TRC (mg/L) Average Monthly	0.4	0.6	0.4	0.5	0.3							
TRC (mg/L) Instantaneous Maximum	1.36	1.25	1.35	1.26	0.4							
CBOD5 (lbs/day) Average Monthly	0.3	0.5	0.2	0.4	0.7							
CBOD5 (mg/L) Average Monthly	2	5	3	6	7							
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	51	28	20	13	10							
BOD5 (lbs/day) Raw Sewage Influent Daily Maximum	61	32	27	16	10							
BOD5 (mg/L) Raw Sewage Influent Average Monthly	317	287	249	202	102							
TSS (lbs/day) Average Monthly	0.5	0.8	0.6	0.7	1							
TSS (lbs/day) Raw Sewage Influent Average Monthly	17	8	12	4	3							
TSS (lbs/day) Raw Sewage Influent Daily Maximum	19	8	19	5	3							
TSS (mg/L) Average Monthly	3	9	7	10	10							
TSS (mg/L) Raw Sewage Influent Average Monthly	107	82	154	66	32							
Fecal Coliform (CFU/100 ml) Geometric Mean	1	1	180	5	2420							
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	1	1	2419.6	25.9	2419.6							

Compliance History	
Summary of DMRs:	The facility began discharging in May 2019 and has begun submitting eDMRs for the month of July 2019.
Summary of Inspections:	The facility was most recently inspected on July 16, 2019 by Clarissa Alcorn, WQS. This inspection identified no violations.

Other Comments: A WMS query found no open violations in eFACTS for Brady Township, Clearfield County in eFACTS.

Effluent Violations for Outfall 001, from: October 1, 2018 To: September 30, 2019

Parameter	Month	SBC	DMR Value	Units	Limit Value	Units
TRC	08/19	Avg Mo	0.6	mg/L	0.5	mg/L
Fecal Coliform	07/19	IMAX	2419.6	CFU/100 ml	1000	CFU/100 ml
Fecal Coliform	05/19	IMAX	2419.6	CFU/100 ml	1000	CFU/100 ml
Fecal Coliform	05/19	Geo Mean	2420	CFU/100 ml	200	CFU/100 ml

Existing Effluent Limitations and Monitoring Requirements – Outfall 001

Parameter	Effluent Limitations					Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)			Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	9.0	1/day	Grab
Total Residual Chlorine	XXX	XXX	XXX	0.5	1.6	1/day	Grab
CBOD5	8.3	XXX	XXX	25	50	2/month	Grab
BOD5 Raw Sewage Influent	Report	Report	XXX	Report	XXX	2/month	Grab
Total Suspended Solids Raw Sewage Influent	Report	Report	XXX	Report	XXX	2/month	Grab
Total Suspended Solids	10	XXX	XXX	30	60	2/month	Grab
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	1,000	2/month	Grab
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	10,000	2/month	Grab

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.04
Latitude 41º 3' 26.00" **Longitude** -78º 43' 9.00"
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 already included in the existing permit.

Per 25 Pa. Code §95.5, discharges of sewage to abandoned mine drainage-impaired water must receive secondary treatment. Should a determination ever be made that the stream has or is expected to improve significantly the requirements of the discharge could change.

Water Quality-Based Limitations

Due to the AMD impairment to the receiving stream which extends down to Luthersburg Branch and Laborde Branch, no water quality-based limitations will be applied to this discharge. Therefore, no WQM7.0 or TRC modeling was performed and no ammonia or dissolved oxygen limits or TRC limits more stringent than the technology limit listed above will be included in the NPDES permit. However, Dissolved Oxygen (DO) and Ammonia-Nitrogen (NH_3-N) monitoring will be required of the discharge consistent with typical requirements for POTWs and to monitoring operation of the treatment facility.

Toxics Management

No further “Reasonable Potential Analysis” was performed to determine additional parameters as candidates for limitations for this small municipal treatment plant with no significant industrial users and the abovementioned AMD impairment of the receiving stream.

Nutrient Requirements

Nutrient monitoring was not included in the existing permit. Annual Total Nitrogen and Total Phosphorus monitoring will now be included proposed draft permit.

Best Professional Judgment (BPJ) Limitations

Comments: No BPJ limits should be necessary beyond the technology-based limits listed above.

Anti-Backsliding

No 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.

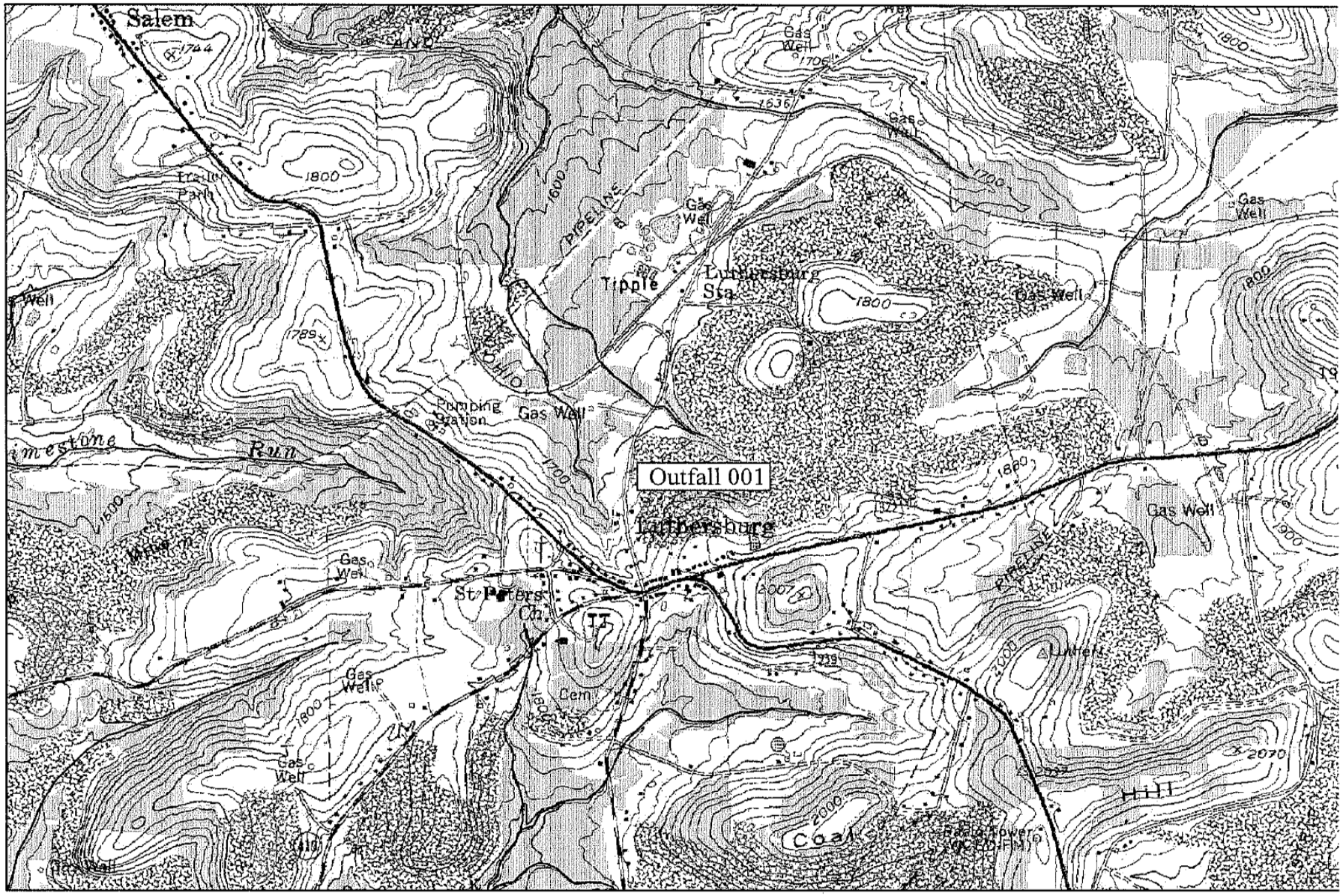
Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	8.3	XXX	XXX	25	XXX	50	2/month	Grab
BOD5 Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	2/month	Grab
TSS	10	XXX	XXX	30	XXX	60	2/month	Grab
TSS Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	2/month	Grab
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
Dissolved Oxygen	XXX	XXX	Monitor Inst Min	XXX	XXX	XXX	1/day	Grab
Total Nitrogen	XXX	Report	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Total Phosphorus	XXX	Report	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Total Aluminum (µg/L)	XXX	Report	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Total Iron (µg/L)	XXX	Report	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Total Manganese (µg/L)	XXX	Report	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Other Comments: The above limits and monitoring are unchanged from the existing permit except for the addition of NH_3-N, DO, Total Nitrogen, Total Phosphorus, Total Aluminum, Total Iron, and Total Manganese monitoring.

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☐	PENTOXSD for Windows Model (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Toxics Screening Analysis 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
☐	Other:

Attachments:
Facility discharge map



Brady Township, Clearfield County

NPDES Permit No. PA0232505

0.5 0.25 0 0.5 Miles

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