

Application Type Amendment, Major
 Facility Type Municipal
 Major / Minor Major

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0026379 A-2
 APS ID 1038742
 Authorization ID 1354516

Applicant and Facility Information

Applicant Name	<u>Bradford Sanitary Authority</u>	Facility Name	<u>Bradford STP</u>
Applicant Address	<u>28 Kennedy Street</u> <u>Bradford, PA 16701-2006</u>	Facility Address	<u>410 Seaward Avenue</u> <u>Bradford, PA 16701-3112</u>
Applicant Contact	<u>Steve Disney</u>	Facility Contact	<u>Steve Disney</u>
Applicant Phone	<u>(814) 368-6254</u>	Facility Phone	<u>(814) 368-7105</u>
Client ID	<u>81373</u>	Site ID	<u>264727</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Foster Township</u>
Connection Status	<u>No Limitations</u>	County	<u>McKean</u>
Date Application Received	<u>May 12, 2021</u>	EPA Waived?	<u>No</u>
Date Application Accepted	<u>May 24, 2021</u>	If No, Reason	<u>Major Facility, Pretreatment</u>
Purpose of Application	<u>Major amendment to extend compliance date for final effluent limits.</u>		

Summary of Review

Bradford Sanitary Authority (BSA) is requesting to extend the final effluent limit effective date for CBOD₅, TSS, and ammonia nitrogen to allow for additional time to initiate the Phase 2 TRE, which will include a review of the toxics modeling, an evaluation of the treatment process and a determination of the WWTP ability to meet the established final permit limits, and comply with the final effluent limits.

BSA initially concluded in their original Phase 1 Final Report, submitted 11/27/2019, that they would be able to meet the final WQBELs for CBOD₅, ammonia nitrogen, and dissolved oxygen. Although Final TSS effluent limits were BPJ-based and not part of the TRE condition, BSA also evaluated this parameter as part of the Phase 1 activities and determined it could be met. Subsequent sampling conducted since the Phase 1 Final Report was submitted resulted in BSA revising their Phase 1 TRE Report to alternatively conclude that they would still be able to meet the final dissolved oxygen limits currently, but would not be able to consistently meet final effluent limits for CBOD₅, ammonia nitrogen, and TSS. The revised Phase 1 Report, approved by the Department on 4/14/2021, indicated BSA would like to proceed with Phase 2 activities.

The Department accepts BSA's arguments for extending the final limit effective date for CBOD₅, ammonia nitrogen, and TSS and is extending the final compliance date to May 1, 2023. This action is being done as a major permit amendment because it is a modification of a final compliance date in the permit.

There are currently no open violations listed in EFACTs for this permittee (7/22/2021).

No new evaluation of effluent limitations was conducted for this permit amendment.

Sludge use and disposal description and location(s): Sludge is dewatered onsite and hauled offsite to a municipal waste landfill.

Approve	Deny	Signatures	Date
X		Adam Pesek Adam J. Pesek, E.I.T. / Environmental Engineer	July 22, 2021
X		Justin C. Dickey Justin C. Dickey, P.E. / Environmental Engineer Manager	July 26, 2021

Summary of Review

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.	<u>001</u>	Design Flow (MGD)	<u>8.8</u>
Latitude	<u>41° 59' 15.5"</u>	Longitude	<u>78° 37' 31.8"</u>
Quad Name	<u>Bradford</u>	Quad Code	<u>0316</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Tunungwant Creek</u>	Stream Code	<u>56932</u>
NHD Com ID	<u>112364695</u>	RMI	<u>0.95</u>
Drainage Area	<u>136.4</u>	Yield (cfs/mi ²)	<u>0.131</u>
Q ₇₋₁₀ Flow (cfs)	<u>17.868</u>	Q ₇₋₁₀ Basis	<u>USGS #03015500 (1/74 – 9/04)</u>
Elevation (ft)	<u>1402</u>	Slope (ft/ft)	<u>0.0012</u>
Watershed No.	<u>16-C</u>	Chapter 93 Class.	<u>WWF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u></u>	Exceptions to Criteria	<u></u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>Cause Unknown, Cause Unknown, Cause Unknown, Mercury</u>		
Source(s) of Impairment	<u>Channelization, Industrial Point Source, Removal of Vegetation, Source Unknown</u>		
TMDL Status	<u></u>	Name	<u></u>
Background/Ambient Data		Data Source	
pH (SU)	<u>8.1</u>		<u>USGS#03010956/030958 ('04-'17)(June-Sept.) 90th %</u>
Temperature (°C)	<u>20.8</u>		<u>USGS#03010956/030958 ('04-'17)(June-Sept.) 90th %</u>
Hardness (mg/L)	<u>77.6</u>		<u>USGS#03010956/030958 ('04-'17)(June-Sept.) Median</u>
Other: NH ₃ -N	<u>0.03</u>		<u>WQN 858 (July-Sept.)(2002-2011) mean value</u>
Nearest Downstream Public Water Supply Intake	<u></u>	PA/NY Line	<u></u>
PWS Waters	<u>Tunungwant Creek</u>	Flow at Intake (cfs)	<u></u>
PWS RMI	<u>0</u>	Distance from Outfall (mi)	<u>0.95</u>

Changes Since Last Permit Issuance:

Other Comments: The USGS stations referenced above are technically the same sampling station. The station number was changed in mid-2010.

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>003</u>	Design Flow (MGD)	<u>0</u>
Latitude	<u>41° 59' 15.8"</u>	Longitude	<u>78° 37' 31.8"</u>
Outfall No.	<u>004</u>	Design Flow (MGD)	<u>0</u>
Latitude	<u>41° 59' 11.4"</u>	Longitude	<u>78° 37' 31.8"</u>
Outfall No.	<u>005</u>	Design Flow (MGD)	<u>0</u>
Latitude	<u>41° 59' 0.9"</u>	Longitude	<u>78° 37' 31.8"</u>
Outfall No.	<u>006</u>	Design Flow (MGD)	<u>0</u>
Latitude	<u>41° 59' 20"</u>	Longitude	<u>78° 37' 31"</u>
Quad Name	<u>Bradford</u>	Quad Code	<u>0316</u>
Wastewater Description: <u>Stormwater</u>			
Receiving Waters	<u>Tunungwant Creek</u>	Stream Code	<u>56932</u>
NHD Com ID	<u>112364695</u>	RMI	<u>---</u>
Drainage Area	<u>136.4</u>	Yield (cfs/mi ²)	<u>0.131</u>
Q ₇₋₁₀ Flow (cfs)	<u>17.868</u>	Q ₇₋₁₀ Basis	<u>USGS #03014400 (1/74 – 9/04)</u>
Elevation (ft)	<u>1402</u>	Slope (ft/ft)	<u>0.0012</u>
Watershed No.	<u>16-C</u>	Chapter 93 Class.	<u>WWF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u></u>	Exceptions to Criteria	<u></u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>Cause Unknown, Cause Unknown, Cause Unknown, Mercury</u>		
Source(s) of Impairment	<u>Channelization, Industrial Point Source, Removal of Vegetation, Source Unknown</u>		
TMDL Status	<u></u>	Name	<u></u>
Background/Ambient Data		Data Source	
pH (SU)	<u>8.1</u>	USGS#03010956/030958 ('04-'17)(June-Sept.) 90 th %	
Temperature (°C)	<u>20.8</u>	USGS#03010956/030958 ('04-'17)(June-Sept.) 90 th %	
Hardness (mg/L)	<u>77.6</u>	USGS#03010956/030958 ('04-'17)(June-Sept.) Median	
Other: NH ₃ -N	<u>0.03</u>	WQN 858 (July-Sept.)(2002-2011) mean value	
Nearest Downstream Public Water Supply Intake	<u>PANY Line</u>		
PWS Waters	<u>Tunungwant Creek</u>	Flow at Intake (cfs)	<u></u>
PWS RMI	<u>0</u>	Distance from Outfall (mi)	<u>0.95</u>

Changes Since Last Permit Issuance:

Other Comments:

Compliance History	
Summary of Inspections:	<p>The last facility inspection was conducted on September 17, 2020. The inspection report did not report any violations. Recommendations given were to review the stormwater Part C condition in the NPDES Permit and implement the minimum BMPS and submit semi-annual reports as well as train personnel involved in material and waste-handling about the stormwater BMPs.</p> <p>Non-Compliance issues noted are as listed below:</p> <ol style="list-style-type: none">1. 25 Pa. Code 252.4(a): Failure to update lab accreditation or registration. Lab accreditation form should be updated/submitted and attached to DMR conducting in house accreditation-by-rule monitoring.2. 25 Pa. Code 302.1202: Owner failed to employ a lab supervisor with a valid, appropriate certificate. Operator will apply and test for lab Supervisor cert ASAP.3. 25 Pa. Code 92a.41(a)(12): Failure to submit monitoring reports or properly complete monitoring reports. Will begin submitting biosolids form starting in September 2020.4. 25 Pa. Code 92a.41(a)(12): Failure to submit a required DMR supplemental report. Operator was unaware form needed to be done when discharging the reedbed. Will begin submitting form and revise March to present forms.5. in permitted treatment units in operable condition clarifiers are out of service due to repairs needed on sludge pumps.

Other Comments:

Compliance History

DMR Data for Outfall 001 (from June 1, 2020 to May 31, 2021)

Parameter	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20
Flow (MGD) Average Monthly	4.41	4.341	5.607	3.835	4.835	5.216	4.25	3.426	2.79	2.75	3.553	3.742
Flow (MGD) Weekly Average	5.33	4.941	6.999	4.604	6.681	6.96	4.58	5.009	3.37	2.94	4.391	4.753
pH (S.U.) Daily Minimum	6.1	6.2										
pH (S.U.) Minimum			6.5	6.4	6.52	6.4	6.6	6.5	6.2	6.1	6.2	6.2
pH (S.U.) Daily Maximum	6.8	6.7										
pH (S.U.) Maximum			6.7	6.78	7.26	7.03	6.8	6.8	6.8	6.8	6.8	7.3
DO (mg/L) Daily Minimum	5.7	7.1										
DO (mg/L) Minimum			8.9	8.6	9.2	8.4	7.9	7.8	6.9	6.9	6.8	6.5
TRC (mg/L) Average Monthly			0.04	0.04	0.06	0.04	0.06	0.05	0.02	0.06	0.05	0.01
TRC (mg/L) Geometric Mean	0.03	0.03										
TRC (mg/L) Instantaneous Maximum	0.13	0.05	0.15	0.09	0.17	0.07	0.09	0.10	0.13	0.33	0.15	0.01
CBOD5 (lbs/day) Average Monthly	79	137	210	120	135	155	135	121	94	127	< 329	< 84
CBOD5 (lbs/day) Weekly Average	119	235	354	176	217	292	140	190	139	246	735	< 103
CBOD5 (mg/L) Average Monthly	2.2	3.3	4.3	3.8	3.4	3.9	3.6	3.8	3.7	5.8	< 9.4	< 2.7
CBOD5 (mg/L) Weekly Average	3.0	4.0	6.0	6.0	4.0	6.0	4.0	5.0	5.0	12.0	16.0	< 4.0
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	2835	3526	3420	3324	2937	2615	2572	3027	1912	2493	2581	3138

**NPDES Permit Fact Sheet
Bradford STP**

NPDES Permit No. PA0026379 A-2

BOD5 (lbs/day) Raw Sewage Influent Daily Maximum	6733	7302	6422	6771	3995	3934	108	5372	2918	3299	4983	5964
BOD5 (mg/L) Raw Sewage Influent Average Monthly	81	104.5	71.9	108.2	81	72	70.2	110.2	81.7	110.2	89.9	102.6
TSS (lbs/day) Average Monthly	147	330	277	158	213	235	186	178	177	202	582	113
TSS (lbs/day) Raw Sewage Influent Average Monthly	3562	3674	3460	3451	2930	2849	3420	2780	2009	1962	2848	3169
TSS (lbs/day) Raw Sewage Influent Daily Maximum	7879	8784	5687	10280	4189	4143	6431	6890	3034	3045	7596	7684
TSS (lbs/day) Weekly Average	221	739	451	220	321	332	205	271	323	325	1185	166
TSS (mg/L) Average Monthly	4.0	7.1	6.0	4.9	5.6	5.3	5.0	5.6	7.0	9.1	16.4	3.5
TSS (mg/L) Raw Sewage Influent Average Monthly	105	105	77	109	82	78	92	96	82.9	1962	93.5	99.4
TSS (mg/L) Weekly Average	4.3	10.6	11.0	7.4	6.2	6.5	4.8	6.5	10.1	15.5	28.8	4.2
Fecal Coliform (CFU/100 ml) Geometric Mean	20	12	17	9	9	43	13	18	131	194	161	74
Fecal Coliform (No./100 ml) Geometric Mean	20	12	17	9	9	43	13	18	131	194	161	74
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	480	980	200	81	31	880	56	156	600	600	600	600
Fecal Coliform (No./100 ml) Instantaneous Maximum	480	980	200	81	31	880	56	156	600	600	600	600
Total Nitrogen (lbs/day) Average Quarterly			41			71			90			< 16
Total Nitrogen (mg/L) Average Quarterly			1.055			1.615			3.54			< 0.5

**NPDES Permit Fact Sheet
Bradford STP**

NPDES Permit No. PA0026379 A-2

Ammonia (lbs/day) Average Monthly	7	17	27	106	94	50	29	77	114	92	< 190	< 39
Ammonia (mg/L) Average Monthly	0.2	0.3	0.5	3.6	2.6	1.3	0.8	3.0	4.9	3.3	< 6.7	< 1.3
Total Phosphorus (lbs/day) Average Quarterly			9			19			7			9
Total Phosphorus (mg/L) Average Quarterly			0.23			0.432			0.275			0.292
Total Copper (lbs/day) Average Monthly	0.3	0.4	0.4	< 0.3	0.4	0.4	< 0.4	0.3	0.2	< 0.2	0.3	< 0.4
Total Copper (mg/L) Average Monthly	0.010	0.010	0.010	< 0.0108	0.010	0.0101	< 0.010	< 0.010	0.010	< 0.010	< 0.001	< 0.010

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: April 30, 2023 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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
CBOD5	730	1100	XXX	10.0	15.0	20	5/week	24-Hr Composite
TSS	730	1100	XXX	10.0	15.0	20	5/week	24-Hr Composite
Ammonia Nov 1 - Apr 30	550	XXX	XXX	7.5	XXX	13	5/week	24-Hr Composite
Ammonia May 1 - Oct 31	180	XXX	XXX	2.5	XXX	5	5/week	24-Hr Composite

Compliance Sampling Location: Outfall 001 (after disinfection)

Other Comments:

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 April 29, 2023.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
CBOD5 Nov 1 - Apr 30	1835	2935	XXX	25.0	40.0	50	5/week	24-Hr Composite
CBOD5 May 1 - Oct 31	1100	1650	XXX	15.0	22.5	30	5/week	24-Hr Composite
TSS	2200	3300	XXX	30.0	45.0	60	5/week	24-Hr Composite
Ammonia Nov 1 - Apr 30	770	XXX	XXX	10.5	XXX	21	5/week	24-Hr Composite
Ammonia May 1 - Oct 31	255	XXX	XXX	3.5	XXX	7	5/week	24-Hr Composite

Compliance Sampling Location: Outfall 001 (after disinfection)

Other Comments:

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 Wkly Avg	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/day	Grab
DO	XXX	XXX	5.0 Daily Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.2 Geo Mean	XXX	0.65	1/day	Grab
BOD5 Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	5/week	24-Hr Composite
TSS Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	5/week	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	5/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	5/week	Grab
Total Nitrogen	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Total Phosphorus	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Total Copper	Report	XXX	XXX	0.016	XXX	0.032	1/week	24-Hr Composite

Compliance Sampling Location: Outfall 001 (after disinfection)

Other Comments: