pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0208639**
Facility Type	**Municipal**	APS ID	**974111**
Major / Minor	**Minor**	Authorization ID	**1238975**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Hartleton Borough Municipal Authority Union County**	Facility Name	**Hartleton Borough Sewer System STP**
Applicant Address	PO Box 31	Facility Address	South Alley
	Hartleton, PA 17829-0031		Hartleton, PA 17829
Applicant Contact	Clifford Herrold, Auth. Chairman	Facility Contact	Walter Scholl, Operator
Applicant Phone	(570) 922-1320	Facility Phone	(570) 850-8888
Client ID	92613	Site ID	245339
Ch 94 Load Status	Existing Organic Overload	Municipality	Hartleton Borough
Connection Status	Dept. Imposed Connection Prohibitions	County	Union
Date Application Received	July 27, 2018	EPA Waived?	Yes
Date Application Accepted	August 6, 2018	If No, Reason	

Purpose of Application: Renewal of a NPDES permit

Summary of Review

The Hartleton Borough Municipal Authority sewage treatment plant serves only Hartleton Borough, Union County. A map of the discharge location is attached.

Hartleton Borough Municipal Authority has expressed the intent to merge with the Lewis Township Municipal Authority and ultimately convert this facility into a pump station and deliver flows to an upgraded LTMA plant which discharges under NPDES Permit No. PA0114049. The Department received a joint Act 537 plan from Lewis Township, Hartleton Borough and Hartley Township on June 11, 2019 which proposes an aggressive schedule for completing construction in 2021.

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
X		Keith C. Allison / Project Manager	June 11, 2019
		Nicholas Hartranft, P.E. / Environmental Engineer Manager	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.023
Latitude	40º 53' 59.25"	Longitude	-77º 9' 5.41"
Quad Name	Hartleton, PA	Quad Code	1128
Wastewater Description:	Sewage Effluent		
Receiving Waters	Cold Run (TSF)	Stream Code	18147
NHD Com ID	54962121	RMI	1.7
Drainage Area	1.08 mi^2	Yield (cfs/mi^2)	0.125
Q_{7-10} Flow (cfs)	0.135	Q_{7-10} Basis	Gauge 01555000, Penns Creek @Penns Creek, PA (1931-2008)
Elevation (ft)	620	Slope (ft/ft)	0.00743
Watershed No.	6-A	Chapter 93 Class.	TSF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	SILTATION		
Source(s) of Impairment	CROP PRODUCTION (CROP LAND OR DRY LAND), GRAZING IN RIPARIAN OR SHORELINE ZONES		
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Suez Water PA, Inc, Rockville Intake at Susquehanna Township, Dauphin County		
PWS Waters	Susquehanna River	Distance from Outfall (mi)	Approx. 67

Changes Since Last Permit Issuance: The above stream and drainage characteristics were developed for the previous permit renewal and remain appropriate.

Other Comments:

The above-listed impairment to Cold Run is primarily attributed to siltation from agriculture. No TMDL has yet been developed to address this impairment. Hartleton Borough consistently meets its TSS limits and is not expected to be contributing substantially to the impairment and therefore will receive no additional monitoring or limitations at this time to address the impairment.

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

Treatment Facility Summary				
Treatment Facility Name: Hartleton Borough				
WQM Permit No.	**Issuance Date**			
6094403	T-1 – 4/8/97 Original – 2/28/94			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary	Extended Aeration	Erosion Chlorinator	0.023
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.023	46	Existing Organic Overload	Aerobic Digestion	Land Application

Changes Since Last Permit Issuance: None

Other Comments: The treatment consists of an influent pump station, bar screen, equalization tank, 23,000-gallon aeration tank, 3,925-gallon clarifier, erosion chlorinator, 1,625-gallon chlorine contact tank, and 5,577-gallon sludge holding tank.

Overload___

Biosolids/Sludge Disposal
The facility's sludge is transferred for further processing to the Kelly Township Municipal Authority facility discharging under NPDES permit No. PA0028681.

Compliance History	
Summary of DMRs:	The facility DMRs have shown no effluent violations over the past year of DMR data The permittee has recently become registered to use the eDMR system.
Summary of Inspections:	The facility has been inspected periodically by the Department over the past permit term, most recently on May 13, 2019 by John Springer, WQS. This inspection identified the failure to submit timely DMRs as a violation.

Other Comments: A WMS query identified no open violations in eFACTS for Hartleton Borough Municipal Authority.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.023
Latitude 40º 53' 54.60" **Longitude** -77º 9' 7.60"
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 limits are applicable and already included in the existing permit and will therefore remain.

Water Quality-Based Limitations

CBOD5, NH3-N & DO

The WQM7.0 model allows the Department 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 receiving stream and the mixing and consumption of DO in the stream due to the degradation of $CBOD_5$ and NH_3-N. The facility has existing water quality-based ammonia-nitrogen limitations. Modeling was performed during the previous renewal including the nearby Lewis Township Municipal Authority discharge showing that the existing limitations are adequate to protect the receiving stream. Because stream and discharge conditions have not changed the exist modeling remains applicable and these previous results are attached (Attachment B).

Total Residual Chlorine

The Department uses a modeling spreadsheet to determine whether water quality-based limitations are necessary to protect the receiving stream based on available instream dilution. The attached modeling results show that the existing technology-based limit of 0.5 mg/L is adequate to protect the receiving stream. However, the Instantaneous Maximum limit will be reduced from 1.7 to 1.6 mg/L, consistent with the modeling and typical IMAX TRC limitations. See Attachment B.

Toxics Management

No further “Reasonable Potential Analysis” was performed at this time to determine additional parameters as candidates for limitations or monitoring for this minor sewage treatment facility with no industrial dischargers.

Chesapeake Bay/Nutrient Requirements

According to the Pennsylvania’s Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, this facility is considered a Phase 5 Chesapeake Bay sewage discharger, and as such requires no nutrient loading limits. Per a review of the facility DMRs over the past permit term the Total Nitrogen has averaged 16 mg/L and the Total Phosphorus has averaged 1.5 mg/L. Because the nutrients levels in the discharge have adequately been characterized, existing annual Total Nitrogen and Total Phosphorus monitoring will be removed from this proposed draft permit.

Best Professional Judgment (BPJ) Limitations

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

Anti-Backsliding

No limitations were made less stringent in this proposed draft permit 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: Phase 1 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		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0	XXX	9.0 Max	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	4.8	7.2	XXX	25	40	50	2/month	Grab
BOD5 Raw Sewage Influent	Report	Report	XXX	Report	Report	XXX	2/month	Grab
TSS	6.0	9.0	XXX	30	45	60	2/month	Grab
TSS Raw Sewage Influent	Report	Report	XXX	Report	Report	XXX	2/month	Grab
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Ammonia Nov 1 - Apr 30	3.0	5.2	XXX	18	27	36	2/month	Grab
Ammonia May 1 - Oct 31	1.2	1.8	XXX	6	9	12	2/month	Grab

Compliance Sampling Location: Outfall 001

Other Comments: The monitoring and limitations above are unchanged from the existing permit except for the removal of Total Nitrogen and Total Phosphorus Monitoring as noted above and the change to the TRC IMAX as also mentioned above.

Tools and References Used to Develop Permit	
☒	WQM for Windows Model (see Attachment **B**)
☐	PENTOXSD for Windows Model (see Attachment)
☒	TRC Model Spreadsheet (see Attachment **B**)
☐	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: