pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0088048**
Facility Type	**Municipal**	APS ID	**37502**
Major / Minor	**Minor**	Authorization ID	**1182228**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**New Morgan Borough**	Facility Name	**New Morgan Borough STP**
Applicant Address	200 Bethlehem Drive Suite 102	Facility Address	99 Grace Boulevard
	Morgantown, PA 19543-9771		Morgantown, PA 19543-9771
Applicant Contact	Margie Bishop	Facility Contact	Michael Sullivan
Applicant Phone	(610) 286-9666	Facility Phone	(610) 286-9666
Client ID	117542	Site ID	517856
Ch 94 Load Status	Not Overloaded	Municipality	New Morgan Borough
Connection Status	No Limitations	County	Berks
Date Application Received	May 4, 2017	EPA Waived?	Yes
Date Application Accepted	July 13, 2017	If No, Reason	
Purpose of Application	NPDES Renewal.		

Summary of Review

New Morgan Borough (Borough) has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of the NPDES permit. The permit was last reissued on October 22, 2012 and became effective on November 1, 2012. The permit expired on October 31, 2017 but the terms and conditions of the permit have been extended since that time.

Based on the review, it is recommended that the permit be drafted.

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
		Jinsu Kim / Environmental Engineering Specialist	October 28, 2019
		Daniel W. Martin, P.E. / Environmental Engineer Manager	
		Maria D. Bebenek, P.E. / Program Manager	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.2
Latitude	40º 9' 34.3"	Longitude	-75º 52' 39.4"
Quad Name	Morgantown	Quad Code	1738
Wastewater Description:	Sewage Effluent		
Receiving Waters	East Branch Conestoga River	Stream Code	7548
NHD Com ID	57461727	RMI	60.25
Drainage Area	6.93 sq.mi.	Yield (cfs/mi^2)	0.086
Q_{7-10} Flow (cfs)	0.597	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)		Slope (ft/ft)	
Watershed No.	7-J	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	NUTRIENTS and ORGANIC ENRICHMENT		
Source(s) of Impairment	AGRICULTURE and SOURCE UNKNOWN		
TMDL Status	Final	Name	Conestoga Headwaters TMDL
Nearest Downstream Public Water Supply Intake	Lancaster City (Lancaster Municipal Water Authority) Site ID: 454320		
PWS Waters	Conestoga River	Flow at Intake (cfs)	
PWS RMI	23	Distance from Outfall (mi)	Approx. 38 miles

Drainage Area
The discharge is to East Branch Conestoga River at RM 60.25. According to DEP's eMapPA, the receiving water is listed as East Branch Conestoga River, yet, it is also identified with a stream code for Conestoga River which is 07548. The terms East Branch Conestoga River and Conestoga River will therefore be used interchangeably throughout this fact sheet. A drainage area upstream of the point of discharge is estimated to be 6.93 sq.mi. using USGS StreamStats available at https://streamstats.usgs.gov/ss/.

Streamflow
USGS StreamStats produced a Q7-10 flow of 0.597 cfs at the point of discharge.

Conestoga River
Under 25 Pa Code §93.9o, East Branch Conestoga from the source to confluence with Unnamed Tributary 07792 to Conestoga River at RM 43.05 is designated warm water fishes and supports migratory fishes. East Branch Conestoga is a tributary of Susquehanna River. No special protection water is therefore impacted by this discharge. No Class A Wild Trout Fishery is impacted by this discharge as well. DEP's latest integrated water quality report indicates that East Branch Conestoga River at the point of discharge is impaired for nutrients and organic enrichment/low DO as a result of agricultural activity and unknown source(s). In August 2004, DEP developed a Total Maximum Daily Load (TMDL) to address impairments identified within the Conestoga Headwaters, particularly in Caernarvon Township and New Morgan Borough of Berks County. The more details on this TMDL will be discussed later in this fact sheet.

Public Water Supply Intake
The fact sheet developed for the last permit renewal indicates that the nearest downstream public water supply intake is the Lancaster Municipal Water Authority located on the Conestoga River approximately 38 miles from the discharge. Given the distance, the discharge is not expected to impact the water supply.

Treatment Facility Summary				
Treatment Facility Name: New Morgan STP				
WQM Permit No.	**Issuance Date**			
0799403	12/28/1999			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary	Sequencing Batch Reactor	Ultraviolet	0.2
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.2	400	Not Overloaded	Aerobic Digestion	Landfill

The Borough owns and operates a sanitary wastewater treatment plant located at 99 Grace Boulevard, Morgantown PA 19543. The treatment plant serves the area of New Morgan Borough only and all sewer systems are 100% separated. The plant has an annual average design flow and hydraulic design capacity of 0.2 MGD. The treatment plant utilizes a sequencing batch reactor (SBR) activated sludge treatment process consisting of influent screening, SBRs (2), post equalization tank, UV disinfection units (2), and outfall to Conestoga River.

A sludge holding tank and drying beds are available for sludge processing. Alum is used for phosphorous removal and soda ash is used for pH control. The application indicates that there is no industrial and commercial users contributing industrial wastewater to the sewer system. Sludge is sent to Pottstown WWTP.

Compliance History

Summary of DMRs: A summary of past 12-month DMR data is presented on the next page.

Summary of Inspections:

4/27/2018: Kevin Buss, DEP Compliance Specialist, conducted a routine inspection and noted that all treatment units appear to be operating normally and records are up to date. No significant issues were noted at the time of inspection.

01/18/2017: Kevin Buss conducted a routine inspection and noted that all treatment units appear to be operating normally and records are up to date. No significant issues were noted at the time of inspection.

Other Comments: Since the last permit reissuance, the following effluent violations were identified:

Date	Parameter	Results	Limits	Units	SBC
3/2013	TSS	58	45	mg/L	Wkly Avg
2/2014	TSS	110	45	mg/L	Wkly Avg
2/2014	CBOD5	66	34	mg/L	Wkly Avg
2/2014	CBOD5	44	23	mg/L	Avg Mon
2/2014	TP	2.3	2	mg/L	Avg Mon
2/2014	TSS	68	30	mg/L	Avg Mon
2/2014	pH	0	6	S.U.	Minimum
3/2014	TSS	67	45	mg/L	Wkly Avg
9/2014	Fecal Coliform	1600	1000	CFU/100 ml	IMAX
1/2015	TSS	68	45	mg/L	Wkly Avg
4/2018	Fecal Coliform	< 13000	10000	CFU/100 ml	IMAX

DEP's database revealed that there is no open violation associated with this facility or permittee.

Effluent Data

DMR Data for Outfall 001 (from September 1, 2018 to August 31, 2019)

Parameter	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18	SEP-18
Flow (MGD) Average Monthly	0.010203	0.009279	0.009303	0.009693	0.011185	0.011911	0.011565	0.015424	0.011018	0.010432	0.0101201	0.013641
Flow (MGD) Daily Maximum	0.019727	0.01591	0.023952	0.017689	0.015024	0.01777	0.017876	0.1102	0.015761	0.020794	0.0165	0.054419
pH (S.U.) Minimum	6.69	6.6	6.94	6.95	6.5	6.65	6.76	6.8	6.8	6.73	6.79	6.79
pH (S.U.) Maximum	8.14	8.13	8.38	8.12	8.09	8.49	8.21	8.35	8.07	8.65	8.43	8.42
DO (mg/L) Minimum	6.04	5.56	5.51	5.44	6.49	6.68	6.61	7.06	6.6	7.04	5.96	5.49
CBOD5 (lbs/day) Average Monthly	< 0.2	0.2	< 0.2	< 0.2	< 0.2	0.4	< 0.2	< 0.6	0.3	0.2	0.2	0.3
CBOD5 (lbs/day) Weekly Average	0.2	0.3	0.3	< 0.2	0.3	0.6	0.2	< 2	0.4	0.2	0.4	0.3
CBOD5 (mg/L) Average Monthly	< 2	2.4	< 2.4	< 2	< 2	3	< 2	< 2	2.0	2	3	3
CBOD5 (mg/L) Weekly Average	2.2	2.6	3.5	2	3	4	3	2	3.0	2	3	3
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	16	14	23	535	23	28	22	57	26	12	11	13
BOD5 (lbs/day) Raw Sewage Influent Daily Maximum	40	24	41	28	28	36	30	173	39	16	15	23
BOD5 (mg/L) Raw Sewage Influent Average Monthly	150.3	156.6	245	173	216	251	283	224	224	152	112	138
TSS (lbs/day) Average Monthly	< 0.7	0.9	0.7	0.6	0.7	1	0.7	2	1	2	1	2
TSS (lbs/day) Raw Sewage Influent Average Monthly	13	14	23	497	19	26	18	60	18	13	15	14
TSS (lbs/day) Raw Sewage Influent Daily Maximum	24	28	30	28	24	29	33	175	33	18	27	27
TSS (lbs/day) Weekly Average	1	1	0.9	0.8	0.8	1	0.8	6	2	4	2	2
TSS (mg/L) Average Monthly	< 6	10	7	7	7	10	8	7	10	21	17	15

TSS (mg/L) Raw Sewage Influent Average Monthly	130	159	246	158	181	226	222	254	155	158	166	140
TSS (mg/L) Weekly Average	11	13	9	8	9	13	10	9	20	34	29	17
Fecal Coliform (CFU/100 ml) Geometric Mean	< 3	< 4	< 2	< 2	< 2	< 2	< 9	< 3	< 13	22	< 8	< 9
Fecal Coliform (CFU/100 ml) IMAX	< 22	33	< 2	< 2	< 2	< 2	72	10	3100	100	110	74
Nitrate-Nitrite (mg/L) Average Monthly	< 37.4	< 36.7	< 43	< 36.5	< 35.5	< 35.1	< 37.1	< 37	< 38.1	< 37.7	< 40.8	< 30.3
Nitrate-Nitrite (lbs) Total Monthly	< 115	< 96	< 119	< 109	< 109	< 125	< 82	< 330	< 132	< 91	< 119	< 94
Total Nitrogen (mg/L) Average Monthly	< 38.39	< 37.67	< 44.28	< 37.47	< 36.92	< 37.07	< 38.99	< 38.54	< 39.87	< 39.06	< 42.25	< 31.42
Total Nitrogen (lbs) Total Monthly	< 118	< 98	< 123	< 112	< 114	< 133	< 86	< 343	< 139	< 94	< 123	< 97
Total Nitrogen (lbs) Effluent Total Annual												35
Ammonia (lbs/day) Average Monthly	< 0.02	< 0.008	< 0.03	< 0.01	0.03	0.05	0.05	< 3.6	< 0.08	< 0.01	< 0.01	< 0.01
Ammonia (mg/L) Average Monthly	< 0.2	< 0.1	< 0.3	< 0.1	0.3	0.4	0.6	< 0.4	< 0.6	< 0.2	< 0.1	< 0.1
Ammonia (lbs) Total Monthly	< 0.7	< 0.3	< 0.09	< 0.3	1.0	1.6	1.3	< 3.6	< 2.4	< 0.1	< 0.4	< 0.3
Ammonia (lbs) Effluent Total Annual												< 18
TKN (mg/L) Average Monthly	0.97	0.99	1.33	1.01	1.45	1.97	1.87	1.5	1.75	< 1.34	< 42.25	< 1.1
TKN (lbs) Total Monthly	3	3.0	4	3	5.0	7	4.0	13	6	< 3	< 123	< 3
Total Phosphorus (lbs/day) Average Monthly	0.06	0.05	0.05	0.05	0.05	0.06	0.04	0.1	0.07	0.08	0.1	0.1
Total Phosphorus (mg/L) Average Monthly	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.5	0.6	0.9	1.1	1.0
Total Phosphorus (lbs) Total Monthly	1.8	1.5	1.5	1.6	1.6	1.8	1.2	3.5	2.2	2.3	3.1	2.9
Total Phosphorus (lbs) Effluent Total Annual												< 78

Existing Effluent Limits and Monitoring Requirements

Tables below summarize effluent limits and monitoring requirements specified in the current permit.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum 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	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
CBOD5	38	56	XXX	23	34	46	1/week	24-Hr Composite
BOD5 Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Total Suspended Solids	50	75	XXX	30	45	60	1/week	24-Hr Composite
Total Suspended Solids Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	1/week	Grab
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	1/week	Grab
Ammonia-Nitrogen May 1 - Oct 31	7.0	XXX	XXX	4.5	XXX	9.0	1/week	24-Hr Composite
Ammonia-Nitrogen Nov 1 - Apr 30	22.0	XXX	XXX	13.5	XXX	27.0	1/week	24-Hr Composite
Total Phosphorus	3.3	XXX	XXX	2.0	XXX	4.0	1/week	24-Hr Composite
Total Phosphorus	Report (lbs) Total Monthly	1218 (lbs) Total Annual (3)	XXX	XXX	XXX	XXX	1/month	Calculation

Parameter	Effluent Limitations					Monitoring Requirements	
	Mass Units (lbs)		Concentrations (mg/L)			Minimum Measurement Frequency	Required Sample Type
	Monthly	Annual	Minimum	Monthly Average	Maximum		
Ammonia---N	Report	Report	XXX	Report	XXX	1/week	24-Hr Composite
Kjeldahl---N	Report	XXX	XXX	Report	XXX	1/month	24-Hr Composite
Nitrate-Nitrite as N	Report	XXX	XXX	Report	XXX	1/month	24-Hr Composite
Total Nitrogen	Report	Report	XXX	Report	XXX	1/month	Calculation
Total Phosphorus	Report	Report	XXX	Report	XXX	1/week	4-Hr Composite

Development of Effluent Limitations and Monitoring Requirements

Outfall No. 001 **Design Flow (MGD)** 0.2
Latitude 40º 9' 34.28" **Longitude** -75º 52' 52.55"
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)

Water Quality-Based Limitations

WQM 7.0 version 1.0b is a water quality model designed to assist DEP to determine appropriate permit requirements for CBOD5, NH3-N and DO. DEP's guidance no. 391-2000-007 provides the technical methods contained in WQM 7.0 for conducting wasteload allocation and for determining recommended NPDES effluent limits for point source discharges. The model output indicates that existing effluent limits are still protective of water quality. No changes are therefore recommended for this permit renewal.

Toxics
DEP's current permit renewal application for minor sewage facilities greater than 0.1 MGD requires sampling of Total Copper, Total Lead, and Total Zinc. The application reported 0.020 mg/L for Total Copper, 0.057 mg/L for Total Zinc and <0.01 mg/L for Total Lead. These concentrations for Total Zinc and Total Lead are below levels of concern. For Total Copper, the concentration exceeded the criteria. Due to a limited data, DEP however determined that a routine monitoring of Total Copper is recommended for this permit term to obtain ample data for the next permit renewal for further evaluation. Since water quality criteria developed for Total Copper is hardness-based, monitoring for Total Hardness is also recommended at the time of sampling for Total Copper.

Chesapeake Bay TMDL
The Chesapeake Bay TMDL identifies the necessary pollution reductions from major sources of nitrogen, phosphorus and sediment across the Bay jurisdictions and sets pollution limits necessary to meet water quality standards. On March 30, 2012, DEP finalized Pennsylvania's Chesapeake Watershed Implementation Plan Phase 2 (i.e., Phase 2 WIP) to address U.S EPA's expectations for the Chesapeake Bay TMDL. The Phase 2 WIP is an update to the Pennsylvania's Chesapeake Bay TMDL Strategy (2004) and the Chesapeake WIP Phase I (2011). The more details on the TMDL are available at www.dep.pa.gov.

As part of the Phase 2 WIP development process, a Supplement to the Phase 2 WIP was developed on April 2, 2012, providing an update on TMDL implementation for point sources and a discussion of adjustments to the permitting strategy as a result of implementation experience. This document provides the following implementation status for this facility:

"New Morgan Borough STP (PA0088048) has planning approval to expand to 0.5 MGD, but has not submitted a Water Quality Management (WQM) permit application to construct upgraded facilities, and is currently discharging flows below the

threshold for significant Chesapeake Bay dischargers (0.4 MGD). The submission of a WQM permit application and issuance of a WQM permit by DEP is required prior to an upgrade. New Morgan's WLAs of 9,132 lbs/yr TN and 1,218 lbs/yr TP have been moved from the Significant Sewage sector to the Non-Significant sector."

The WQM permit application has not yet been submitted to DEP as of the date of this fact sheet. While having an annual average design flow of 0.2 MGD, the facility has been, on average, consistently discharging about 5% of the design flow (0.01 MGD) as a monthly average flow and about 10% of the design flow (0.02 MGD) as a daily maximum flow. The facility will therefore remain as a non-significant phase 4 sewage discharger. The Phase II WIP continues to require phase 4 facilities to monitor for nutrients at a frequency no less than monthly. The existing requirement to monitor for nutrients will therefore remain in the permit. A summary of nutrient effluent data is presented below:

Year	Total TN (lbs)	Total TP (lbs)
2013	1285	36
2014	1407	24
2015	1462	21
2016	1426	19
2017	35 (35*52 = 1820)	<78

The existing permit contains the following condition in Part C:

> *C. Future Expansion*
>
> *If the permittee expands the treatment plant in the future in accordance with previous DEP approval granted under Act 537 Municipal Sewage Planning for 0.5 MGD design flow, Chesapeake Bay cap loads for nutrients will be added to this permit as follows:*
>
> *0.8 mg/l TP x 0.5 MGD discharge x 8.34 conversion factor x 365 days/year = 1218 lbs/yr Total Phosphorus*
> *6 mg/l TN x 0.5 MGD discharge x 8.34 conversion factor x 365 days/year = 9132 lbs/yr Total Nitrogen*
>
> *Also, a Water Quality Management Permit from the DEP must first be obtained for the construction of new treatment plants or for expansions.*

This will continue to be included in Part C of the permit for information purposes.

Local TMDL
In August 2004, DEP developed a Total Maximum Daily Load (TMDL) to address impairments identified for the Conestoga Headwaters watershed located in Caernarvon Township and New Morgan Borough, Berks County. This TMDL assigned a Total Phosphorus wasteload allocation (WLA) for this facility with the following description on page 15 of the TMDL:

"…The other two facilities that do not discharge regularly are New Morgan Borough and Timet Inc., permit numbers PA0088048 and PA0051683 respectively. The New Morgan wastewater treatment plant is currently not operating, while the Timet discharge only occurs occasionally. However, the discharge design capacities were used to determine the waste load allocations for 16 each facility. Both facilities have permit limits on phosphorus of 2.0 mg/l. Design flows for the New Morgan and Timet discharges are 0.2 mgd and 0.008 mgd respectively. For the WLA, the New Morgan and Timet loadings were set at 1,218.37 lbs/yr and 48.73 lbs/yr respectively."

The existing permit contains a total annual loading limit of 1,218 lbs/yr for Total Phosphorus. This requirement will continue to be included in the upcoming permit renewal.

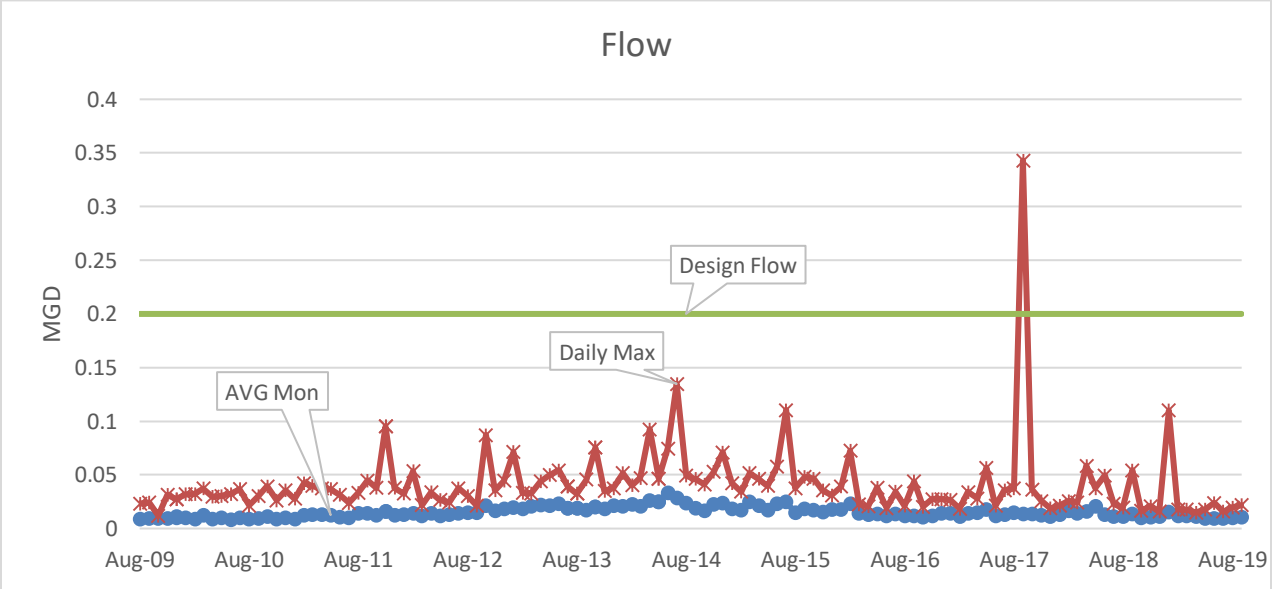
Best Professional Judgment (BPJ) Limitations

Dissolved Oxygen
The existing minimum DO effluent limit is the current warm water fishery water quality criterion for DO listed in 25 Pa Code §93.7(a). It is recommended that this limit be maintained in the permit to ensure the protection of water quality standards. This approach is consistent with DEP's current Standard Operating Procedure (SOP) no. BPNPSM-PMT-033 and has been applied to other point source dischargers throughout the state.

Total Phosphorus
The existing permit contains average monthly and instantaneous maximum (IMAX) effluent limits of 2.0 mg/L and 4.0 mg/L, respectively. This is consistent with the current TMDL for the Conestoga Headwaters as well as DEP's SOP no. BPNPSM-PMT-033. This approach is also supported by 25 Pa Code §96.5(c). Further, DEP finds no reason to remove or relax these effluent limits at this time. No changes are therefore recommended in accordance with 40 CFR §122.44(l)(1).

Additional Considerations

Flow Monitoring
The requirement to monitor the volume of effluent will remain in the draft permit per 40 CFR § 122.44(i)(1)(ii). As mentioned before, effluent volume reported on a monthly data has consistently been significantly lower than the design flow. Past 10-year DMR data shown below confirmed this finding:



The reported monthly average flow has always been low but there have been certain periods of the year the discharge exceeded 0.05 MGD (i.e., 23 out of 128 months) possibly due to an I & I. There are two (2) SBR tanks and according to the operator, one of the SBR tank has never been utilized since the installation of these tanks.

Influent BOD & TSS Monitoring
As a result of negotiation with EPA, the existing influent monitoring reporting requirement for TSS and BOD5 will be maintained in the draft permit. This requirement has been consistently assigned to all municipal wastewater treatment facilities.

Ultraviolet (UV) Monitoring
DEP's Standard Operating Procedure (SOP no. BPNPSM-PMT-033) recommends a routine monitoring of Ultraviolet (UV) transmittance or intensity when the facility is utilizing an UV disinfection system in lieu of chlorination. Based on the conversation with the facility, the facility is not currently equipped with a monitoring device for such measurements for the UV system. Given that the facility has been experiencing low flows, it is not reasonable to require this facility to install a new monitoring device to monitor for UV output at this time which could possible place a significant financial burden on the Borough. In the opinion of DEP, the requirement to monitor for UV output will therefore be "held off" until the facility receives higher flows and/or consistently experiences effluent violations for fecal coliform.

Total Dissolved Solids
TDS and its associated solids including Bromide, Chloride, and Sulfate have become statewide pollutants of concern. The requirement to monitor these pollutants must be considered under the criteria specified in 25 Pa. Code § 95.10 and the following January 23, 2014 DEP Central Office Directive:

For point source discharges and upon issuance or reissuance of an individual NPDES permit:

-Where the concentration of TDS in the discharge exceeds 1,000 mg/L, or the net TDS load from a discharge exceeds 20,000 lbs/day, and the discharge flow exceeds 0.1 MGD, Part A of the permit should include monitor and report for TDS, sulfate, chloride, and bromide. Discharges of 0.1 MGD or less should monitor and report for TDS, sulfate, chloride, and bromide if the concentration of TDS in the discharge exceeds 5,000 mg/L.

- Where the concentration of bromide in a discharge exceeds 1 mg/L and the discharge flow exceeds 0.1 MGD, Part A of the permit should include monitor and report for bromide. Discharges of 0.1 MGD or less should monitor and report for bromide if the concentration of bromide in the discharge exceeds 10 mg/L.

The facility reported maximum concentrations of 580 mg/L for TDS and < 2.0 mg/L for bromide. Accordingly, the requirement to monitor for these pollutants is not necessary.

Mass Loading Limitations
All effluent mass loading limits will be based on the formula: design flow x concentration limit x conversion factor of 8.34.
Antidegradation Requirements
All effluent limitations and monitoring requirements have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected.

Anti-backsliding Requirements
Unless stated otherwise in this fact sheet, all permit requirements proposed in this fact sheet are at least as stringent as those specified in the existing permit.

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)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Instant. Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
CBOD5	38	56	XXX	23	34	46	1/week	24-Hr Composite
BOD5 Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Total Suspended Solids	50	75	XXX	30	45	60	1/week	24-Hr Composite
Total Suspended Solids Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	1/week	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	1/week	Grab
Ammonia-Nitrogen May 1 - Oct 31	7.0	Report Total Monthly	XXX	4.5	XXX	9.0	1/week	24-Hr Composite
Ammonia-Nitrogen Nov 1 - Apr 30	22.0	Report Total Monthly	XXX	13.5	XXX	27.0	1/week	24-Hr Composite
Total Phosphorus	3.3	XXX	XXX	2.0	XXX	4.0	1/week	24-Hr Composite
Total Phosphorus (Total Loads, lbs)	Report Total Monthly	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus (Total Loads, lbs)	XXX	1218 Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Copper	XXX	Report Daily Max	XXX	XXX	Report Daily Max	XXX	1/month	24-Hr Composite

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Instant. Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Total Hardness	XXX	Report Daily Max	XXX	XXX	Report Daily Max	XXX	1/month	24-Hr Composite
Nitrate-Nitrite	Report	Report Total Monthly	XXX	Report	XXX	XXX	1/month	24-Hr Composite
TKN	Report	Report Total Monthly	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Total Nitrogen	Report	Report Total Monthly	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen (Total Loads, lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation

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:
☐	Other: