

Application Type Renewal
Facility Type Municipal
Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0112470
APS ID 997261
Authorization ID 1280081

Applicant and Facility Information

| | | | |
|---------------------------|---|------------------|--|
| Applicant Name | <u>Upper Augusta Township</u> | Facility Name | <u>Upper Augusta Township WWTF</u> |
| Applicant Address | <u>2087 Snyderstown Road</u> <u>Sunbury, PA 17801-5141</u> | Facility Address | <u>Sr 4004 Mt Pleasant Village</u> <u>Sunbury, PA 17801</u> |
| Applicant Contact | <u>David Hanes</u> | Facility Contact | <u>Ron Perry</u> |
| Applicant Phone | <u>570-286-0912</u> | Facility Phone | <u>570-286-0912</u> |
| Client ID | <u>39515</u> | Site ID | <u>242171</u> |
| Ch 94 Load Status | <u>Not Overloaded</u> | Municipality | <u>Upper Augusta Township</u> |
| Connection Status | <u>Self-Imposed Connection Prohibition</u> | County | <u>Northumberland</u> |
| Date Application Received | <u>July 03, 2019</u> | EPA Waived? | <u>Yes</u> |
| Date Application Accepted | <u>July 19, 2019</u> | If No, Reason | <u>N/A</u> |
| Purpose of Application | <u>Renewal of existing NPDES permit</u> | | |

Summary of Review

INTRODUCTION

David Hines, Chairman of the Upper Augusta Township supervisors, has proposed the renewal of the existing National Pollution Discharge Elimination System (NPDES) permit authorizing the discharge from the municipal wastewater treatment facility (WWTF) serving the village of Mount Pleasant.

APPLICATION

Hines, the client contact for this application, submitted the NPDES Application for Individual Permit to Discharge Sewage Effluent from Minor Sewage Facilities (DEP #3800-PM-BCW0342b). This application was received by the Department on July 03, 2019 and was considered administratively complete on July 19, 2019. His additional contact information is (fax) 570-286-4412 and (email) upperaugustatwp@gmail.net. The site contact is Ron Perry, Assistant Operator. The application consultant is Craig Zack, PE, Senior Engineer with KPI Technology of Gettysburg, PA. His contact information is (phone) 717-339-0612, (fax) 717-339-0717 and (email) craigz@kpitech.net.

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.

The case file, permit application package and the draft permit will be available for public review at the Department's Northcentral Regional Office. The address is 208 West Third Street, Suite 101, Williamsport, PA 17701. An appointment can be made to review these materials during the comment period by calling the file coordinator at 570-327-3636.

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| Approve | Deny | Signatures | | Date |
|---------|------|---------------------------|---|------|
| | | Jeffrey J. Gocek, EIT | Jeffrey J. Gocek Project Manager | |
| | | Nicholas W. Hartranft, PE | Nicholas W. Hartranft Environmental Engineer Manager | |

DISCHARGE, RECEIVING WATERS AND WATER SUPPLY INFORMATION

| | | | |
|---|---|------------------------------|----------------------------|
| Outfall No. | <u>001</u> | Design Flow (MGD) | <u>0.009</u> |
| Latitude | <u>40° 53' 41.46"</u> | Longitude | <u>-76° 44' 17.71"</u> |
| Quad Name | <u>Riverside, PA</u> | Quad Code | <u>1132</u> |
| Wastewater Description: | <u>Treated Domestic Wastewater</u> | | |
| Receiving Waters | <u>Unnamed Tributary of Susquehanna River</u> | Stream Code | <u>64253</u> |
| NHD Com ID | <u>65643313</u> | RMI | <u>1.29</u> |
| Drainage Area | <u>0.20</u> | Yield (cfs/mi ²) | <u>0.11</u> |
| Q ₇₋₁₀ Flow (cfs) | <u>0.022</u> | Q ₇₋₁₀ Basis | <u>USGS Gage #01554000</u> |
| Elevation (ft) | <u>689</u> | Slope (ft/ft) | <u>N/A</u> |
| Watershed No. | <u>5-E</u> | Chapter 93 Class. | <u>CWF</u> |
| Existing Use | <u>None</u> | Existing Use Qualifier | <u>N/A</u> |
| Exceptions to Use | <u>N/A</u> | Exceptions to Criteria | <u>N/A</u> |
| Assessment Status | <u>Attaining Use(s)</u> | | |
| Cause(s) of Impairment | <u>N/A</u> | | |
| Source(s) of Impairment | <u>N/A</u> | | |
| TMDL Status | <u>N/A</u> | Name | <u>N/A</u> |
| Nearest Downstream Public Water Supply Intake | <u>Shamokin Dam Borough Water and Sewer Authority</u> | | |
| PWS Waters | <u>Susquehanna River</u> | Flow at Intake (cfs) | <u>1,990</u> |
| PWS RMI | <u>123</u> | Distance from Outfall (mi) | <u>7.7</u> |

Q_{7,10} Determination

The Q_{7,10} is the lowest seven consecutive days of flow in a 10-year period and is used for modeling wastewater treatment plant discharges. 25 PA § 96.1 defines Q_{7,10} as the “actual or estimated lowest seven consecutive day average flow that occurs once in 10 years for a stream with unregulated flow or the estimated minimum flow for a stream with regulated flow”.

A nearby downstream gage, “Susquehanna River at Sunbury, PA” (USGS #01554000) was selected as a reference gage. A Q_{7,10} flow for that gage was obtained from “Selected Streamflow Statistics for Streamgage Locations in and near Pennsylvania” (USGS Open Files Report 2011-1070). Knowing the drainage area at the discharge (0.2 mi²) and both the drainage area (18,300 mi²) and Q_{7,10} (1,990 CFS) at the reference gage, the Q_{7,10} at the discharge was calculated to be 0.022 CFS.

See Attachment 01 for the Q_{7,10} determination.

TREATMENT FACILITY SUMMARY

The wastewater treatment system serving the village of Mt. Pleasant in Upper Augusta Township, Northumberland County was originally constructed as an EPA Innovative/Alternative Funding Project.

This system, designed in 1985 to serve approximately 45 homes, is a “marsh, meadow and pond” system. Each home utilizes a septic tank for solids removal. The wastewater treatment system consists of an aeration tank, a flow meter, the marsh (two cells), the pond (one cell), the meadow (wetland; two cells), a discharge box, an erosion chlorinator and a chlorine contact tank, prior to discharge.

See Attachment 02 for a map of the treatment plant location.

The WWTP summary is as follows:

| Waste Type | Degree of Treatment | Process Type | Disinfection | Avg Annual Flow (MGD) |
|--------------------------|----------------------------------|-------------------|---------------------|------------------------|
| Sewage | Secondary with Ammonia Reduction | Extended Aeration | Hypochlorite | 0.009 |
| Hydraulic Capacity (MGD) | Organic Capacity (lbs/day) | Load Status | Biosolids Treatment | Biosolids Use/Disposal |
| 0.009 | 11 | Not Overloaded | Aerobic Digestion | Other WWTP |

This system was originally approved by Water Quality Management (WQM) permit #4985408, issued January 24, 1986. This permit was amended, by letter, on November 8, 1994 to replace the erosion chlorination with ultraviolet (UV) disinfection. The permit was amended again, as #4985408 A-1, on December 7, 2006 to replace the UV disinfection with erosion chlorination. A final amendment, by letter, was approved April 14, 2010 to replace the existing (rusting) steel aeration tank with a concrete tank.

Due to the failure to meet a compliance schedule for Ammonia limits included in the 2014 permit renewal issuance, the Township entered into a Consent Order and Agreement (COA) with the Department in May 2017. As part of the second amendment to the COA, it was finalized that the Township will decommission the existing WWTF and convey wastewater to the Sunbury Municipal Authority via a pump station and force main.

A WQM permit, #4918401, was issued in early 2019 and approved the above referenced Mount Pleasant Sewer Extension. This project consists of a pump station, a booster pumping station and three force mains.

COMPLIANCE HISTORY

The WMS Query *Open Violations for Client by Permit Number* revealed no open violations for the Township.

The most recent Department inspection, a Compliance Evaluation Inspection (CEI), was conducted April 09, 2018. At the time of the inspection, all required treatment units were online and operational. The plant effluent was clear with fine solids and had a TRC of 0.46 mg/L and a pH of 8.1. Violations were noted during the inspection, specifically effluent limit violations from January and March 2018.

Recent effluent violations, from April 2019 to February 202 are presented in the table below.

| Parameter | Date | SBC | DMR Value | Units | Limit Value |
|----------------|----------|--------|-----------|------------|-------------|
| TRC | 09/30/19 | IMAX | 1.34 | mg/L | 0.77 |
| TRC | 09/30/19 | IMAX | 1.34 | mg/L | 0.77 |
| Fecal Coliform | 08/31/19 | Avg Mo | 337 | No./100 ml | 200 |
| Fecal Coliform | 08/31/19 | IMAX | 1553.1 | No./100 ml | 1000 |
| Ammonia | 02/29/20 | Avg Mo | 15.4 | mg/L | 15 |
| Ammonia | 01/31/20 | Avg Mo | 15.6 | mg/L | 15 |

Recent Discharge Monitoring Report (DMR) data, from March 2019 to February 2020, is presented in the table below.

CONTINUED on the next page.

| Parameter | FEB-20 | JAN-20 | DEC-19 | NOV-19 | OCT-19 | SEP-19 | AUG-19 | JUL-19 | JUN-19 | MAY-19 | APR-19 | MAR-19 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Flow (MGD) Average Monthly | 0.00243 | 0.0025 | 0.0022 | 0.00202 | 0.00201 | 0.00178 | 0.00246 | 0.00215 | 0.00202 | 0.00209 | 0.00214 | 0.00302 |
| Flow (MGD) Weekly Average | 0.00264 | 0.00265 | 0.00266 | 0.00220 | 0.00244 | 0.00193 | 0.00368 | 0.00251 | 0.00223 | 0.00246 | 0.00245 | 0.00375 |
| pH (S.U.) Minimum | 7.12 | 7.10 | 6.68 | 7.00 | 6.97 | 6.95 | 6.87 | 6.86 | 7.04 | 7.08 | 7.01 | 7.25 |
| pH (S.U.) IMAX | 7.71 | 8.01 | 7.88 | 8.01 | 8.48 | 8.29 | 8.24 | 8.72 | 7.66 | 7.57 | 7.76 | 7.69 |
| DO (mg/L) Minimum | 9.33 | 9.93 | 9.91 | 8.98 | 8.42 | 8.0 | 6.57 | 6.61 | 6.94 | 7.12 | 7.88 | 8.26 |
| TRC (mg/L) Average Monthly | 0.10 | 0.22 | 0.16 | 0.19 | 0.20 | 0.21 | 0.05 | 0.11 | 0.07 | 0.07 | 0.12 | 0.14 |
| TRC (mg/L) IMAX | 0.62 | 0.37 | 0.27 | 0.30 | 0.30 | 1.34 | 0.11 | 0.61 | 0.16 | 0.27 | 0.56 | 0.52 |
| CBOD5 (lbs/day) Average Monthly | 0.10 | 0.04 | < 0.03 | 0.03 | 0.03 | 0.03 | 0.08 | 0.04 | 0.08 | 0.08 | 0.04 | 0.06 |
| CBOD5 (lbs/day) Weekly Average | 0.20 | 0.04 | < 0.03 | 0.04 | 0.03 | 0.03 | 0.1 | 0.05 | 0.10 | 0.09 | 0.04 | 0.06 |
| CBOD5 (mg/L) Average Monthly | 6.0 | < 2.0 | < 2.0 | 2.0 | 2.0 | < 2.0 | < 2.0 | 2.0 | 4.0 | 5.0 | 2.0 | 3.0 |
| CBOD5 (mg/L) Weekly Average | 10 | < 2.0 | < 2.0 | 2.0 | 2.0 | < 2.0 | < 2.0 | 2.0 | 7.0 | 6.0 | 2.0 | 3.0 |
| BOD5 (lbs/day) Raw Sewage Influent Average Monthly | 2.0 | 4.0 | 3.0 | 3.0 | 2.0 | 2.0 | 5.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| BOD5 (mg/L) Raw Sewage Influent Average Monthly | 128 | 191 | 177 | 152 | 118 | 182 | 113 | 187 | 170 | 186 | 144 | 123 |
| TSS (lbs/day) Average Monthly | < 0.20 | < 0.08 | < 0.06 | < 0.06 | 0.08 | < 0.08 | < 0.2 | 0.2 | 0.08 | 0.08 | < 0.07 | 0.09 |
| TSS (lbs/day) Raw Sewage Influent Average Monthly | 0.06 | 4.0 | 3.0 | 5.0 | 2.0 | 2.0 | 4.0 | 4.0 | 0.9 | 2.0 | 2.0 | 1.0 |
| TSS (lbs/day) Weekly Average | 0.30 | < 0.09 | < 0.06 | < 0.07 | 0.10 | 0.1 | < 0.2 | 0.3 | 0.1 | 0.1 | < 0.08 | 0.09 |
| TSS (mg/L) Average Monthly | < 10 | < 4.0 | < 4.0 | < 4.0 | 6.0 | < 7 | < 0.7 | 8.0 | 5.0 | 4.0 | < 4.0 | 4.0 |
| TSS (mg/L) Raw Sewage Influent Average Monthly | 28 | 205 | 198 | 212 | 154 | 182 | 81 | 209 | 54 | 121 | 107 | 58 |
| TSS (mg/L) Weekly Average | 16 | < 4.0 | < 4.0 | < 4.0 | 7.0 | 9.0 | 1.2 | 12 | 6.0 | 4.0 | < 4.0 | 4.0 |
| Fecal Coliform (No./100 ml) Average Monthly | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 5.0 | < 6.0 | 337 | 17 | 6.0 | 3.0 | < 1.0 | < 1.0 |
| Fecal Coliform (No./100 ml) IMAX | 2.0 | < 1.0 | < 1.0 | < 1.0 | 27.5 | 41 | 1553.1 | 93.4 | 10.9 | 9.7 | 1.0 | < 1.0 |
| Total Nitrogen (lbs/day) Average Monthly | | | 1.33 | | | | | | | | | |
| Total Nitrogen (mg/L) Average Monthly | | | 69.9 | | | | | | | | | |
| Ammonia (lbs/day) Average Monthly | 0.30 | 0.3 | 0.01 | < 0.005 | 0.01 | < 0.004 | < 0.01 | 0.04 | 0.03 | 0.08 | 0.1 | 0.4 |
| Ammonia (mg/L) Average Monthly | 15.4 | 15.6 | 0.79 | < 0.3 | 0.93 | < 0.36 | < 0.7 | 2.6 | 1.7 | 4.5 | 6.8 | 15.8 |
| Total Phosphorus (lbs/day) Average Monthly | | | 0.06 | | | | | | | | | |
| Total Phosphorus (mg/L) Average Monthly | | | 3.3 | | | | | | | | | |

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EXISTING PERMIT LIMITATIONS

The following limitations were established at the last renewal issuance which occurred March 11, 2015. The Ammonia limitations took effect January 01, 2018.

| Discharge Parameter | Mass Limits (lb/day) | | Concentration Limits (mg/L) | | | | Monitoring Requirements | |
|--|----------------------|----------------|-----------------------------|-------------------------|----------------|--------|-------------------------------|----------------------|
| | Monthly Average | Weekly Average | Minimum | Monthly Average | Weekly Average | IMAX | Minimum Measurement Frequency | Required Sample Type |
| Flow (MGD) | Report | Report | XXX | XXX | XXX | XXX | Continuous | Metered |
| pH (SU) | XXX | XXX | 6.0 | XXX | XXX | 9.0 | 5/Week | Grab |
| Dissolved Oxygen | XXX | XXX | 4.0 | XXX | XXX | XXX | 5/Week | Grab |
| Total Residual Chlorine | XXX | XXX | XXX | 0.23 | XXX | 0.77 | 5/Week | Grab |
| CBOD ₅ | 1.9 | 3.0 | XXX | 25 | 40 | 50 | 2/Month | Grab |
| BOD ₅ Influent | Report | XXX | XXX | Report | XXX | XXX | 1/Month | Grab |
| Total Suspended Solids | 2.3 | 3.4 | XXX | 30 | 45 | 60 | 1/Month | Grab |
| TSS Influent | Report | XXX | XXX | Report | XXX | XXX | 1/Month | Grab |
| Fecal Coliform (No./100mL) (05/01-09/30) | XXX | XXX | XXX | 200 Geometric Mean | XXX | 1,000 | 2/Month | Grab |
| Fecal Coliform (No./100mL) (10/01-04/30) | XXX | XXX | XXX | 2,000 Geometric Mean | XXX | 10,000 | 2/Month | Grab |
| Ammonia Nitrogen (05/01-10/31) | 0.38 | XXX | XXX | 5.0 | XXX | 10.5 | 2/Month | Grab |
| Ammonia Nitrogen (11/01-04/30) | 1.0 | XXX | XXX | 15 | XXX | 31.5 | 2/Month | Grab |
| Total Nitrogen | Report | XXX | XXX | Report | XXX | XXX | 1/Year | Grab |
| Total Phosphorus | Report | XXX | XXX | Report | XXX | XXX | 1/Year | Grab |

DEVELOPMENT OF EFFLUENT LIMITATIONS

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) |

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Water Quality Based Limitations

Total Residual Chlorine

The Department's *TRC_CALC spreadsheet* is a model used to evaluate Total Residual Chlorine (TRC) effluent limitations. This model determines applicable acute and chronic wasteload allocations (WLA) for TRC based on the data supplied by the user and then compares the WLA to the technology-based average monthly limit using the procedures described in the EPA Technical Support Document (for Water Quality-based Toxics Control).

| Parameter | Effluent Limitations (mg/L) | |
|-------------------------|-----------------------------|-------|
| | Monthly Average | IMAX |
| Total Residual Chlorine | 0.237 | 0.774 |

See Attachment 03 for the TRC_CALC output.

CBOD₅, NH₃-N and DO

WQM 7.0 for Windows is a DEP computer model used to determine wasteload allocations and effluent limitations for CBOD₅, NH₃-N and DO for single and multiple point source discharge scenarios. This model simulates two basic processes. The NH₃-N module simulates the mixing and degradation of NH₃-N in the stream and compares calculated instream NH₃-N concentrations to the water quality criteria. The DO module simulates the mixing and consumption of DO in the stream due to degradation of CBOD₅ and NH₃-N and compares the calculated instream DO concentrations to the water quality criteria. The model then determines the highest pollutant loading the stream can assimilate and still meet water quality under design conditions.

This model recommended the following limitations. The existing technology-based limitations were used as model inputs and proved to be more stringent than water quality-based limitations calculated by the model.

| Parameter | Effluent Limitations (mg/L) | | |
|--------------------|-----------------------------|---------|---------|
| | 30 Day Average | Maximum | Minimum |
| CBOD ₅ | 25 | | |
| NH ₃ -N | 5.0 | 10 | |
| DO | | | 3.0 |

See Attachment 04 for the WQM model output.

Best Professional Judgment (BPJ) Limitations

In the absence of applicable effluent guidelines for the discharge or pollutant, permit writers must identify and/or develop needed technology-based effluent limitations (TBELs) on a case-by-case basis, in accordance with the statutory factors specified in the Clean Water Act. No BPJ limitations have been proposed for this draft.

Anti-Backsliding

In order to comply with 40 CFR § 122.44(l) (anti-backsliding requirements), the Department must issue a renewed permit with limitations as stringent as that of the previous permit. No less stringent limitations have been proposed for this draft.

DEVELOPMENT OF EFFLUENT MONITORING

Chesapeake Bay Total Maximum Daily Load (TMDL)

Despite 25 years of extensive restoration efforts, the Chesapeake Bay Total Maximum Daily Load (TMDL) was prompted by insufficient progress and continued poor water quality in the Chesapeake Bay and its tidal tributaries. This TMDL, required by the Clean Water Act, is the largest ever developed by the Environmental Protection Agency (EPA). This document identifies the necessary pollution reductions of nitrogen, phosphorus and sediment across Delaware, Maryland, New York, Virginia, West Virginia, District of Columbia and Pennsylvania. It also sets pollution limits necessary to meet applicable water quality standards in the Bay, tidal rivers and embayments.

CONTINUED on the next page.

Pennsylvania explains how and when it will meet its pollution allocations in its Watershed Implementation Plan (WIP), which is incorporated into the TMDL. Pennsylvania's permitting strategy for significant dischargers has been outlined in the Phase I WIP and incorporated in the Phase III WIP by reference, and imposes Total Nitrogen (TN) and Total Phosphorus (TP) cap loads on the significant dischargers.

Because the design flow of this facility is less than 0.2 MGD, the Department considers this a Phase 5 sewage facility (for the purposes of implementing the Chesapeake Bay TMDL). This system has a design flow of 0.0091 MGD. According to the Department's *Supplement to Phase III Watershed Implementation Plan* (revised December 17, 2019) renewed Phase 5 NPDES permits are required to contain monitoring and reporting for Total Nitrogen (TN) and Total Phosphorus (TP) throughout the permit term at a frequency no less than annually.

Influent Monitoring

In order to adequately characterize the influent wastewater, monitoring of influent Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS) will be required at the current frequency of 1/Month.

RECEIVING STREAM

Stream Characteristics

The receiving stream is an Unnamed Tributary to the Susquehanna River. According to 25 PA § 93.9K, this stream is protected for Cold Water Fishes (CWF) and Migratory Fishes (MF). These are the streams *Designated Uses*, which are defined in 25 PA § 93.1 as "those uses specified in §§ 93.9a – 93.9z for each waterbody or segment whether or not the use is being attained". Designated uses are regulations promulgated by the Environmental Quality Board (EQB) throughout the rulemaking process. This stream currently has no *Existing Use*. Existing Use is defined in 25 PA § 93.1 as "those uses actually attained in the waterbody on or after November 28, 1975 whether or not they are included in the water quality standards".

It is located in Drainage List K and State Water Plan 5E (Catawissa and Roaring Creeks). It has been assigned stream code 64253.

Impairment

According to Department's data, this stream is attaining its designated uses for 1. supporting aquatic life and 2. recreation.

The Susquehanna River, to which the unnamed tributary discharges, is not attaining its designated uses. It is impaired for fish consumption by Mercury (cause) and PCBs (cause), while the source of the impairment is unknown. A TMDL was developed in 2009 and was approved by EPA in 2009.

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ADDITIONAL CONSIDERATIONSHauled-In Wastes

According to the application materials, the Upper Augusta Township WWTF has not received hauled-in wastes during the past three years and does not anticipate receiving hauled-in wastes in the next five years.

Whole Effluent Toxicity (WET) Testing

According to the application materials, the Upper Augusta Township WWTF does not accept wastewater from industrial users. Because of this, a WET test evaluation is not required.

Mass Limitations

Existing mass limitations for CBOD₅ and TSS are calculated by multiplying the concentration (mg/L) by the flow (MGD) by the conversion (8.34).

Rounding of Limitations

Limitations have been rounded in accordance with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (#362-0400-001).

Limit Multipliers

The instantaneous maximum limitations have been calculated using multipliers of 2.0 (for conventional pollutants) and 2.5 (for toxic pollutants) for determining the monthly average. This practice is in accordance with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (#362-0400-001).

Sample Frequencies and Types

The sample type and minimum measurement frequencies are in accordance with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (#362-0400-001).

Standard Operating Procedures (SOPs)

The review of this permit application was performed in accordance with the Department's *SOP for New and Reissuance Sewage Individual NPDES Permit Applications* and *SOP for Establishing Effluent Limitations for Individual Sewage Permits* (SOP #BPNPSM-PMT-033).

Special Permit Conditions

Stormwater Prohibition
Approval Contingencies
Proper Waste Disposal

Supplemental Discharge Monitoring Reports

Daily Effluent Monitoring
Non-Compliance Reporting
Biosolids Production and Disposal
Hauled-in Municipal Waste
Influent and Process Control
Lab Accreditation

CONTINUED on the next page.

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.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date

| Discharge Parameter | Mass Limits (lb/day) | | Concentration Limits (mg/L) | | | | Monitoring Requirements | |
|---|----------------------|----------------|---------------------------------|-------------------------|----------------|--------|-------------------------------|----------------------|
| | Monthly Average | Weekly Average | Minimum | Monthly Average | Weekly Average | IMAX | Minimum Measurement Frequency | Required Sample Type |
| Flow (MGD) | Report | Report | XXX | XXX | XXX | XXX | Continuous | Metered |
| pH (SU) | XXX | XXX | 6.0 Instantaneous Minimum | XXX | XXX | 9.0 | 5/Week | Grab |
| Dissolved Oxygen | XXX | XXX | 4.0 Instantaneous Minimum | XXX | XXX | XXX | 5/Week | Grab |
| Total Residual Chlorine | XXX | XXX | XXX | 0.23 | XXX | 0.77 | 5/Week | Grab |
| CBOD ₅ | 1.9 | 3.0 | XXX | 25 | 40 | 50 | 2/Month | Grab |
| BOD ₅ Influent | Report | XXX | XXX | Report | XXX | XXX | 1/Month | Grab |
| Total Suspended Solids | 2.3 | 3.4 | XXX | 30 | 45 | 60 | 1/Month | Grab |
| TSS Influent | Report | XXX | XXX | Report | XXX | XXX | 1/Month | Grab |
| Fecal Coliform (No./100mL) (05/01-09/30) | XXX | XXX | XXX | 200 Geometric Mean | XXX | 1,000 | 2/Month | Grab |
| Fecal Coliform (No./100mL) (10/01-04/30) | XXX | XXX | XXX | 2,000 Geometric Mean | XXX | 10,000 | 2/Month | Grab |
| Ammonia Nitrogen (05/01-10/31) | 0.38 | XXX | XXX | 5.0 | XXX | 10.5 | 2/Month | Grab |
| Ammonia Nitrogen (11/01-04/30) | 1.0 | XXX | XXX | 15 | XXX | 31.5 | 2/Month | Grab |
| Total Nitrogen | Report | XXX | XXX | Report | XXX | XXX | 1/Year | Grab |
| Total Phosphorus | Report | XXX | XXX | Report | XXX | XXX | 1/Year | Grab |

END of Fact Sheet.