pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

**Northeast Regional Office**
**CLEAN WATER PROGRAM**

| | | | |
|---|---|---|---|
| Application Type | **Renewal** | Application No. | **PA0061719** |
| Facility Type | **Non-Municipal** | APS ID | **621181** |
| Major / Minor | **Minor** | Authorization ID | **1226116** |

# NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE - SECOND DRAFT

## Applicant and Facility Information

| | | | |
|---|---|---|---|
| Applicant Name | **Aqua Pennsylvania Wastewater, Inc. (APW)** | Facility Name | **Aqua Pennsylvania Wastewater, Inc. Pinecrest Development** |
| Applicant Address | 762 West Lancaster Avenue<br>Bryn Mawr, PA 19010-3489 | Facility Address | Tamaqua Lake Road<br>Pocono Pines, PA 18350 |
| Applicant Contact | Curt R. Steffy, Vice President | Facility Contact | Robert J. Soltis |
| Applicant Phone | (610) 645-1122 | Facility Phone | (570) 443-7099 |
| Client ID | 62614 | Site ID | 450326 |
| Ch 94 Load Status | Not Overloaded | Municipality | Tobyhanna Township |
| Connection Status | No Limitations | County | Monroe |
| Date Application Received | March 29, 2018 | EPA Waived? | Yes |
| Date Application Accepted | May 8, 2018 | If No, Reason | - |

Purpose of Application: Second Draft – Renewal of NPDES permit for discharge of treated sewage.

## Summary of Review

Public notice was published in the PA Bulletin on March 30, 2019.

The purpose of this Second Draft for Aqua Pennsylvania Wastewater, Inc. Pinecrest Development's NPDES permit renewal is due to a comment letter from Entech Engineering, Inc. (Entech). The letter is dated April 29, 2019 and was received via e-mail on April 30, 2019 on behalf of Aqua Pennsylvania Wastewater, Inc. (Aqua). The letter offered two comments for the Department's consideration:

Comment #1 requests the effluent limits for Ammonia-Nitrogen from the previous permit be maintained. Entech recognizes that the modeling used to develop the new effluent limits for Ammonia-Nitrogen were based on a flow rate of 0.5 MGD, however the current constructed capacity of the facility is 0.1 MGD and the annual average flow reported in the 2018 Chapter 94 Report was 0.0347 MGD.

Comment #2 requests the effluent limits for Total Residual Chlorine (TRC) from the previous permit be maintained. This is due to similar reasons listed above in Comment #1.

*Response* – The Department, Entech, and Aqua participated in a conference call on May 14, 2019 to discuss the comments in the letter. A tiered approach for the limitations in the NPDES Permit were agreed upon. The first tier is based off the current constructed capacity of 0.1 MGD. The second tier of 0.35 MGD is based on prospective future development. The third and final tier is for 0.5 MGD, which has been the NPDES-permitted design flow since the permit was originally issued in 1987.

A follow up letter dated June 11, 2019 from Entech was received via e-mail on June 11, 2019 on behalf of Aqua. This letter formally requested the tiered approach to the NPDES limits. New modeling was performed to establish appropriate limits for

| Approve | Deny | Signatures | Date |
|---|---|---|---|
| X | | /s/<br>Allison Seyfried / Environmental Engineering Specialist | October 17, 2019 |
| X | | /s/<br>Amy M. Bellanca, P.E. / Environmental Engineer Manager | October 17, 2019 |

**Summary of Review**

TRC and Ammonia-Nitrogen for the respective flow rate in each tier. These limits can be seen in the tables below and in the Second Draft NPDES Permit.

The June 11, 2019 letter also stated that Entech reviewed the current WQM Part II Permit (No. 4501408 T-2) and found an error. The Annual Average Flow on the existing WQM permit is 0.5 MGD with a Design Organic Capacity of 42 lb/day. However, the original permit dated back to January 28, 2002, has an Annual Average Flow of 0.1 MGD with a Design Organic Capacity of 209 lb/day. Entech requests that the WQM Permit be revised to convey the correct information as shown in the original permit.

*Respo*nse – The Department acknowledges the error in the WQM permit. However, since the error was not brought up upon the initial WQM permit trasnfer, a complete WQM permit amendment package will need to be submitted to correct this error.

WQM Modeling 0.1 MGD.pdf
WQM Modeling 0.35 MGD.pdf
WQM Modeling 0.5 MGD.pdf
TRC 0.1 MGD.pdf
TRC 0.35 MGD.pdf
TRC 0.5 MGD.pdf

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.

## Development of Effluent Limitations

**Outfall No.** 001 **Design Flow (MGD)** 0.10 (Tier 1)
**Latitude** 41º 5' 55.00" **Longitude** -75º 26' 58.00"
**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 |
|---|---|---|---|---|
| Total Suspended Solids | 30.0 | Average Monthly | 133.102(b)(1) | 92a.47(a)(1) |
| | 45.0 | IMAX | 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

The following limitations were determined through water quality modeling:

| Parameter | Limit (mg/l) | SBC | Model |
|---|---|---|---|
| Dissolved Oxygen | 7.0 | Minimum | 1987 Pollution Report |
| Total Residual Chlorine* | 0.10 | Average Monthly | TRC Calculation Spreadsheet |
| | 0.24 | IMAX | |
| $CBOD_5$ | 10.0 | Average Monthly | 1987 Pollution Report |
| | 20.0 | IMAX | |
| Ammonia-Nitrogen May 1 - Oct 31 | 3.0 | Average Monthly | WQM 7.0 (2019) Modeling |
| | 6.0 | IMAX | |
| Ammonia-Nitrogen Nov 1 - Apr 30 | 9.0 | Average Monthly | |
| | 18.0 | IMAX | |
| Total Phosphorus | 1.0 | Average Monthly | Lake Model per 1987 Pollution Report |
| | 2.0 | IMAX | |
| Nitrate-Nitrite as N | 14.0 | Average Monthly | Calculations per 1987 Pollution Report |
| | 28.0 | IMAX | |

*Use of chlorine is authorized for emergency purposes only, in the event of a UV system failure

### Anti-Backsliding

No limitations were made less stringent.

**Outfall No.** 001 **Design Flow (MGD)** 0.35 (Tier 2)
**Latitude** 41º 5' 55.00" **Longitude** -75º 26' 58.00"
**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 |
|---|---|---|---|---|
| | 30.0 | Average Monthly | 133.102(b)(1) | 92a.47(a)(1) |
| Total Suspended Solids | 45.0 | IMAX | 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

The following limitations were determined through water quality modeling:

| Parameter | Limit (mg/l) | SBC | Model |
|---|---|---|---|
| Dissolved Oxygen | 7.0 | Minimum | 1987 Pollution Report |
| Total Residual Chlorine* | 0.06 | Average Monthly | TRC Calculation Spreadsheet |
| | 0.18 | IMAX | |
| $CBOD_5$ | 10.0 | Average Monthly | 1987 Pollution Report |
| | 20.0 | IMAX | |
| Ammonia-Nitrogen May 1 - Oct 31 | 2.2 | Average Monthly | WQM 7.0 (2019) Modeling |
| | 4.3 | IMAX | |
| Ammonia-Nitrogen Nov 1 - Apr 30 | 6.6 | Average Monthly | |
| | 12.9 | IMAX | |
| Total Phosphorus | 1.0 | Average Monthly | Lake Model per 1987 Pollution Report |
| | 2.0 | IMAX | |
| Nitrate-Nitrite as N | 14.0 | Average Monthly | Calculations per 1987 Pollution Report |
| | 28.0 | IMAX | |

*Use of chlorine is authorized for emergency purposes only, in the event of a UV system failure

## Anti-Backsliding

No limitations were made less stringent.

**Outfall No.** 001 **Design Flow (MGD)** 0.50 (Tier 3)
**Latitude** 41º 5' 55.00" **Longitude** -75º 26' 58.00"
**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 |
|---|---|---|---|---|
| | 30.0 | Average Monthly | 133.102(b)(1) | 92a.47(a)(1) |
| Total Suspended Solids | 45.0 | IMAX | 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**

The following limitations were determined through water quality modeling:

| Parameter | Limit (mg/l) | SBC | Model |
|---|---|---|---|
| Dissolved Oxygen | 7.0 | Minimum | 1987 Pollution Report |
| Total Residual Chlorine* | 0.04 | Average Monthly | TRC Calculation Spreadsheet |
| | 0.14 | IMAX | |
| $CBOD_5$ | 10.0 | Average Monthly | 1987 Pollution Report |
| | 20.0 | IMAX | |
| Ammonia-Nitrogen May 1 - Oct 31 | 1.9 | Average Monthly | WQM 7.0 (2019) Modeling |
| | 3.8 | IMAX | |
| Ammonia-Nitrogen Nov 1 - Apr 30 | 5.7 | Average Monthly | |
| | 11.4 | IMAX | |
| Total Phosphorus | 1.0 | Average Monthly | Lake Model per 1987 Pollution Report |
| | 2.0 | IMAX | |
| Nitrate-Nitrite as N | 14.0 | Average Monthly | Calculations per 1987 Pollution Report |
| | 28.0 | IMAX | |

*Use of chlorine is authorized for emergency purposes only, in the event of a UV system failure

**Anti-Backsliding**

No limitations were made less stringent.