

# Northwest Regional Office CLEAN WATER PROGRAM

Application Type
Facility Type
Major / Minor

Renewal

Non-Municipal

Minor

# NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application No. PA0101907

APS ID 1054015

Authorization ID 1380384

| Applicant Name        | Aqua   | PA, Inc.  | Facility Name    | Mariasville STP                                       |
|-----------------------|--------|---|------------------|---|
| Applicant Address     | 665 S  | outh Dock Street                                    | Facility Address | State Route 38/208 and Buttertown Road                |
|                       | Share  | on, PA 16146  | _                | Emlenton, PA 16373                                    |
| Applicant Contact     |        | Martin, Western Area Manager<br>tin@aquaamerica.com | Facility Contact | Kevin O'Neil, STP Operator<br>keoneil@aquaamerica.com |
| Applicant Phone       | (724)  | 981-1200  | Facility Phone   | (814) 319-8133  |
| Client ID             | 30925  | 51  | _ Site ID        | 262989  |
| Ch 94 Load Status     | Not O  | verloaded   | Municipality     | Salem Township  |
| Connection Status     | No Lir | mitations   | County           | Clarion County  |
| Date Application Rece | eived  | December 27, 2021                                   | EPA Waived?      | Yes   |
| Date Application Acce | epted  | January 3, 2022                                     | If No, Reason    | -   |

## **Summary of Review**

Act 14 - Proof of Notification was submitted and received.

A Part II Water Quality Management permit is not required at this time.

The applicant should be able to meet the limits of this permit, which will protect the uses of the receiving stream.

## I. OTHER REQUIREMENTS:

## **SPECIAL CONDITIONS:**

- A. Stormwater into Sewers
- B. Right of Way
- C. Solids Handling
- D. Effluent Chlorine Optimization and Minimization

II. Solids Management

There are 27 open violations in efacts associated with the subject Client ID (309251) as of 12/7/2022 (see Attachment 4).

| Approve | Deny | Signatures   | Date           |
|---------|------|--|----------------|
| ~       |      | Stephen A. McCauley  | 12/7/2022      |
| ٨       |      | Stephen A. McCauley, E.I.T. / Environmental Engineering Specialist | AJP 12/12/2022 |
| V       |      |  | Okay to Draft  |
| ^       |      | Vacant / Environmental Engineer Manager                            | JCD 12/15/2022 |

| Discharge, Receiving Waters and Water Supply Infor  | rmation  |  |
|---|--|--|
| Outfall No. 001  Latitude 41° 12' 12.97"  Quad Name -  Wastewater Description: Sewage Effluent  | Design Flow (MGD) Longitude Quad Code  | 0.008<br>-79° 39' 45.01"<br>-            |
| Receiving Waters Richey Run (CWF)  NHD Com ID 100479585  Drainage Area 1.98  Q <sub>7-10</sub> Flow (cfs) 0.1386  Elevation (ft) 1273  Watershed No. 16-G  Existing Use - Exceptions to Use - Assessment Status Impaired*  Cause(s) of Impairment Cause Unknown  Source(s) of Impairment Abandoned Mine Drainage  TMDL Status - | Yield (cfs/mi²)  Q <sub>7-10</sub> Basis  Slope (ft/ft)  Chapter 93 Class.  Existing Use Qualifier  Exceptions to Criteria | 51144 3.9 0.07 calculated 0.000236 CWF - |
| Background/Ambient Data pH (SU) - Temperature (°F) - Hardness (mg/L) - Other: -  Nearest Downstream Public Water Supply Intake PWS Waters Allegheny River PWS RMI 85.0  | Data Source  | 951<br>11.0                              |

Sludge use and disposal description and location(s): All sludge is disposed of at the Aqua PA - Emlenton WWTP, which disposes waste sludge to an approved landfill.

## **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.

<sup>\* -</sup> This discharge consists of treated non-municipal sewage only and does not contribute to the impairment of the receiving stream. However, since the stream is impaired for AMD metals, per the SOP, monitoring for Total Aluminum, Total Iron, and Total Manganese will be retained with this renewal.

Narrative: This Fact Sheet details the determination of draft NPDES permit limits for an existing discharge of 0.008 MGD of treated sewage from an existing municipal STP in Salem Township, Clarion County.

Treatment permitted under Water Quality Management Permit No. 6183404 consists of the following: 4,670 feet of 1.5 inch PVC pressure sewers, a 10,000 gallon septic tank in series with a 5,000 gallon septic tank, a 3,300 gallon dosing tank, two 2,640 square foot (66' x 40') intermittent surface sand filters, tablet chlorine disinfection with a 4,040 gallon contact tank, and tablet dechlorination with a 1,500 gallon contact tank.

(Due to the nature of the treatment units, the NPDES Solids Management Special Condition was replaced with the SFTF Solids Management Special Condition, since septic tanks are used and there is no active sludge wasting being performed.)

#### 1. Streamflow:

Richey Run at Outfall 001:

Yieldrate: 0.07 cfsm from previous fact sheet

Drainage Area: 1.98 sq. mi. from USGS StreamStats

% of stream allocated: 100% Basis: No nearby discharges

 $Q_{7-10}$ : 0.138 cfs calculated

### 2. Wasteflow:

Maximum discharge: 0.008 MGD = 0.012 cfs

Runoff flow period: 16 hours Basis: Runoff flow for this facility

24 hour flow: 0.008 MGD x 24/16 = 0.012 = 0.018 cfs

The calculated stream flow (Q7-10) is greater than 3 times the permitted discharge flow. In accordance with the SOP, the treatment requirements in document number 391-2000-014, titled, "Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers", dated April 12, 2008, do not need to be evaluated for this facility.

Flow will be required to be monitored as authorized under Chapter 92a.61, and as recommended in the SOP.

#### 3. Parameters:

The following parameters were evaluated: pH, Total Suspended Solids, Fecal Coliform, E. Coli, Total Phosphorus, Total Nitrogen, NH<sub>3</sub>-N, CBOD<sub>5</sub>, Dissolved Oxygen, and Total Residual Chlorine.

## a. <u>pH</u>

Between 6.0 and 9.0 at all times

Basis: Application of Chapter 93.7 technology-based limits.

The measurement frequency will remain as 1/day as recommended in the SOP, based on Table 6-3 in the "Technical Guidance for the Development and Specification of Effluent Limitations" (362-0400-001).

## b. <u>Total Suspended Solids</u>

Limits are 30.0 mg/l as a monthly average and 60.0 as an instantaneous maximum.

Basis: Application of Chapter 92a47 technology-based limits.

## c. Fecal Coliform

05/01 - 09/30: 200/100ml (monthly average geometric mean)

1,000/100ml (instantaneous maximum)

10/01 - 04/30: <u>2,000/100ml</u> (monthly average geometric mean)

10,000/100ml (instantaneous maximum)

Basis: Application of Chapter 92a47 technology-based limits

## d. E. Coli

Monitoring was added for E. Coli at a frequency of 1/year.

Basis: Application of Chapter 92a.61 as recommended by the SOP for flows greater than 0.002 MGD

but less than 0.05 MGD.

### e. Phosphorus

Chapter 96.5 does not apply. However, the previous monitoring for Total Phosphorus will be retained in accordance with the SOP, based on Chapter 92a.61.

## f. Total Nitrogen

The previous monitoring for Total Nitrogen will be retained in accordance with the SOP, based on Chapter 92a.61.

## g. <u>Ammonia-Nitrogen (NH<sub>3</sub>-N)</u>

Median discharge pH to be used: <u>6.9</u> Standard Units (S.U.)

Basis: <u>eDMR data from previous 12 months</u>

Discharge temperature: 25°C (default value used in the absence of data)

Median stream pH to be used: 7.0 Standard Units (S.U.)

Basis: <u>default value used in the absence of data</u>

Stream Temperature: 20°C (default value used for CWF modeling)

Background NH<sub>3</sub>-N concentration: 0.1 mg/l

Basis: Default value

Calculated NH<sub>3</sub>-N Summer limits: 20.5 mg/l (monthly average)

41.0 mg/l (instantaneous maximum)

Calculated NH<sub>3</sub>-N Winter limits: 25.0 mg/l (monthly average)

50.0 mg/l (instantaneous maximum)

Result: WQ modeling resulted in the summer limits above (see Attachment 1). The calculated limits are less

restrictive than in the previous permit, so the previous limits will be retained. The winter limits are calculated as three times the summer limits, but since the technology-based limits are more protective, they will be used. Per the SOP, monitoring for winter NH3-N will be retained with this

renewal.

## h. CBOD<sub>5</sub>

Median discharge pH to be used: 6.9 Standard Units (S.U.)

Basis: eDMR data from previous 12 months

Discharge temperature: 25°C (default value used in the absence of data)

Median stream pH to be used: 7.0 Standard Units (S.U.)

Basis: default value used in the absence of data

Stream Temperature: 20°C (default value used for CWF modeling)

Background CBOD<sub>5</sub> concentration: 2.0 mg/l

Basis: Default value

Calculated CBOD<sub>5</sub> limits: 25.0 mg/l (monthly average)

50.0 mg/l (instantaneous maximum)

Result: WQ modeling resulted in the calculated limits above (see Attachment 1). The limits are the same as in

the previous permit and will be retained.

## i. Influent Total Suspended Solids and BOD5

Monitoring for these two parameters will be retained as recommended in the SOP for POTWs, as authorized under Chapter 92a.61.

The previous monitoring frequency for Influent BOD5 and TSS was set as less than the effluent sampling. The previous frequency will be retained since this STP is a septic tank/sand filter system and the influent can be characterized adequately using a monitoring frequency less than that for the effluent.

## j. <u>Dissolved Oxygen (DO)</u>

The Dissolved Oxygen minimum of 4.0 mg/l will be retained with this renewal. The technology-based minimum is recommended by the WQ Model (see Attachment 2) and the SOP based on Chapter 93.7, under the authority of Chapter 92a.61.

The measurement frequency was previously set to 1/day as recommended in the SOP, based on Table 6-3 in the "Technical Guidance for the Development and Specification of Effluent Limitations" (362-0400-001), and will be retained.

## k. Total Residual Chlorine (TRC)

Ultraviolet (UV) light monitoring

□ TRC limits: 0.5 mg/l (monthly average)

1.6 mg/l (instantaneous maximum)

Basis: The TRC limits above were calculated using the Department's TRC Calculation Spreadsheet

(see Attachment 2). The limits are the same as in the previous NPDES Permit and will be

retained.

The measurement frequency will remain as 1/day as recommended in the SOP, based on Table 6-3 in the "Technical Guidance for the Development and Specification of Effluent Limitations" (362-0400-001).

## 4. Reasonable Potential Analysis for Receiving Stream:

A Reasonable Potential Analysis was performed in accordance with State practices for Outfall 001 using the Department's Toxics Management Spreadsheet (see Attachment 3). The parameters modeled were Aluminum, Iron, and Manganese due to the receiving stream being impaired by AMD.

Result: No reasonable potential was calculated for Total Aluminum, Total Iron, or Total Manganese. However, the previous monitoring for those parameters will be retained.

## 5. Reasonable Potential for Downstream Public Water Supply (PWS):

The Department's Toxics Management Spreadsheet does not calculate limits for parameters that are based on PWS criteria (TDS, Chloride, Bromide, and Sulfate). Since no relevant sampling was provided, mass-balance calculations were not performed.

Nearest Downstream potable water supply (PWS): Parker Area Water Authority

Distance downstream from the point of discharge: 11.0 miles (approximate)

Result: No limits or monitoring is necessary as there is significant dilution available.

## 6. Anti-Backsliding:

Since all the permit limits in this renewal are the same or more restrictive than the previous NPDES Permit, anti-backsliding is not applicable.

### 7. Attachment List:

Attachment 1 - WQ Modeling Printouts

Attachment 2 - TRC\_Calc Spreadsheet

Attachment 3 - Toxics Management Spreadsheet

Attachment 4 - Open Violations in Efacts

(The Attachments above can be found at the end of this document)

## **Compliance History**

## DMR Data for Outfall 001 (from November 1, 2021 to October 31, 2022)

| Parameter                   | OCT-22 | SEP-22 | AUG-22 | JUL-22 | JUN-22 | MAY-22 | APR-22 | MAR-22 | FEB-22 | JAN-22 | DEC-21 | NOV-21 |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Flow (MGD)                  |        |        |        |        |        |        |        |        |        |        |        |        |
| Average Monthly             | 0.0023 | 0.0025 | 0.003  | 0.002  | 0.003  | 0.004  | 0.004  | 0.004  | 0.006  | 0.003  | 0.003  | 0.002  |
| Flow (MGD)                  |        |        |        |        |        |        |        |        |        |        |        |        |
| Daily Maximum               | 0.0035 | 0.0036 | 0.003  | 0.003  | 0.004  | 0.006  | 0.005  | 0.006  | 0.008  | 0.003  | 0.004  | 0.002  |
| pH (S.U.)                   |        |        |        |        |        |        |        |        |        |        |        |        |
| Minimum                     | 6.46   | 6.46   | 6.5    | 6.58   | 6.56   | 6.68   | 6.7    | 6.76   | 6.76   | 7.10   | 7.01   | 7.15   |
| pH (S.U.)                   |        |        |        |        |        |        |        |        |        |        |        |        |
| Maximum                     | 7.02   | 6.99   | 6.99   | 7.07   | 7.08   | 7.29   | 7.32   | 7.27   | 7.47   | 7.39   | 7.85   | 7.54   |
| DO (mg/L)                   |        |        |        |        |        |        |        |        |        |        |        |        |
| Minimum                     | 5.65   | 9.61   | 9.18   | 6.18   | 7.58   | 7.39   | 6.87   | 6.81   | 5.07   | 5.25   | 5.78   | 5.19   |
| TRC (mg/L)                  |        |        |        |        |        |        |        |        |        |        |        |        |
| Average Monthly             | 0.10   | 0.10   | 0.05   | 0.10   | 0.10   | 0.10   | 0.10   | 0.10   | 0.10   | 0.01   | 0.10   | 0.1    |
| TRC (mg/L)                  |        |        |        |        |        |        |        |        |        |        |        |        |
| Instantaneous Maximum       | 0.96   | 1.16   | 0.23   | 0.59   | 0.24   | 1.06   | 1.01   | 0.55   | 0.74   | 1.22   | 1.19   | 0.78   |
| CBOD5 (lbs/day)             |        |        |        |        |        |        |        |        |        |        |        |        |
| Average Monthly             | < 0.06 | 0.3    | 0.20   | < 0.06 | < 0.09 | < 0.10 | 0.09   | < 0.1  | 0.60   | 0.05   | 0.06   | < 0.07 |
| CBOD5 (mg/L)                |        |        |        |        |        |        |        |        |        |        |        |        |
| Average Monthly             | < 2.8  | 14.6   | 7.4    | < 3.3  | < 3.5  | < 2.6  | < 2.1  | < 2.1  | < 9.7  | < 2.1  | < 2.3  | < 3.9  |
| BOD5 (lbs/day) Influent     |        |        |        |        |        |        |        |        |        |        |        |        |
| Average Monthly             | 3      | 22     | 6      | 7      | 8      | 7      | 6      | 17     | 6      | 2      | 2      | 2      |
| BOD5 (lbs/day) Influent     |        |        |        |        |        |        |        |        |        |        |        |        |
| Weekly Average              | 3      | 22     | 6      | 7      | 8      | 7      | 6      | 17     | 6      | 2      | 2      | 2      |
| BOD5 (mg/L) Influent        |        |        |        |        |        |        |        |        |        |        |        |        |
| Average Monthly             | 158    | 729    | 239    | 299    | 330    | 131    | 110    | 660    | 86     | 70     | 75     | 124    |
| TSS (lbs/day)               |        |        |        |        |        |        |        |        |        |        |        |        |
| Average Monthly             | 0.08   | 0.07   | 0.08   | 0.07   | 0.09   | < 0.10 | < 0.10 | 0.10   | 0.20   | 0.10   | 0.08   | 0.1    |
| TSS (lbs/day) Influent      | _      |        |        | _      | _      | _      | _      |        | _      |        | _      | _      |
| Average Monthly             | 3      | 50     | 1      | 2      | 4      | 4      | 2      | 59     | 5      | 1      | 2      | 3      |
| TSS (lbs/day) Influent      | _      |        |        | _      | _      | _      | _      |        | _      |        | _      | _      |
| Weekly Average              | 3      | 50     | 1      | 2      | 4      | 4      | 2      | 59     | 5      | 1      | 2      | 3      |
| TSS (mg/L)                  |        |        |        |        |        |        |        |        |        |        |        |        |
| Average Monthly             | 4.0    | 3.0    | 3.0    | 3.0    | 4.0    | < 3.0  | < 3.0  | < 3.0  | 4.0    | 4.0    | 3.5    | 7.8    |
| TSS (mg/L) Influent         |        |        |        |        |        |        |        |        |        |        |        |        |
| Average Monthly             | 164    | 1660   | 40     | 72     | 172    | 84     | 32     | 2340   | 68     | 40     | 60     | 172    |
| Fecal Coliform (CFU/100 ml) |        |        |        |        |        |        |        |        |        |        |        |        |
| Geometric Mean              | < 1.0  | < 1    | < 1.0  | < 1    | < 1    | < 1.0  | < 1    | < 1.0  | < 1    | < 1    | < 1    | < 1    |

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Mariasville STP

| Fecal Coliform (CFU/100 ml) |        |       |        |         |         |         |         |       |       |      |         |         |
|-----------------------------|--------|-------|--------|---------|---------|---------|---------|-------|-------|------|---------|---------|
| Instantaneous Maximum       | < 1    | 1     | < 1.0  | < 1     | 1       | < 1     | < 1     | 1     | < 1   | < 1  | < 1     | < 1     |
| Total Nitrogen (mg/L)       |        |       |        |         |         |         |         |       |       |      |         |         |
| Average Quarterly           |        | < 0.5 |        |         | 0.50    |         |         | 18.91 |       |      | < 26.49 |         |
| Ammonia (lbs/day)           |        |       |        |         |         |         |         |       |       |      |         |         |
| Average Monthly             | 0.002  | 0.004 | 0.003  | < 0.002 | < 0.003 | < 0.005 | < 0.005 | 0.09  | 0.5   | 0.09 | 0.008   | < 0.002 |
| Ammonia (mg/L)              |        |       |        |         |         |         |         |       |       |      |         |         |
| Average Monthly             | < 0.10 | 0.16  | < 0.10 | 0.10    | < 0.10  | < 0.10  | < 0.10  | 1.837 | 8.506 | 3.50 | 0.3     | < 0.1   |
| Total Phosphorus (mg/L)     |        |       |        |         |         |         |         |       |       |      |         |         |
| Average Quarterly           |        | 3.8   |        |         | 2.17    |         |         | 2.03  |       |      | 2.56    |         |
| Total Aluminum (mg/L)       |        |       |        |         |         |         |         |       |       |      |         |         |
| Annual Average              |        |       |        |         |         |         |         |       |       |      | < 0.10  |         |
| Total Iron (mg/L)           |        |       |        |         |         |         |         |       |       |      |         |         |
| Annual Average              |        |       |        |         |         |         |         |       |       |      | 1.6     |         |
| Total Manganese (mg/L)      |        |       |        |         |         |         |         |       |       |      |         |         |
| Annual Average              |        |       |        |         |         |         |         |       |       |      | 0.159   |         |

NPDES Permit No. PA0101907

## **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.

|                             |            |               | Effluent L | imitations      |             |          | Monitoring Re | quirements |
|-----------------------------|------------|---------------|------------|-----------------|-------------|----------|---------------|------------|
| Parameter                   | Mass Units | (lbs/day) (1) |            | Concentrat      | ions (mg/L) |          | Minimum (2)   | Required   |
| Parameter                   | Average    | Weekly        |            | Average         |             | Instant. | Measurement   | Sample     |
|                             | Monthly    | Average       | Minimum    | Monthly         | Maximum     | Maximum  | Frequency     | Type       |
|                             |            | Report        |            |                 |             |          |               |            |
| Flow (MGD)                  | Report     | Daily Max     | XXX        | XXX             | XXX         | XXX      | 1/week        | Measured   |
|                             |            |               | 6.0        |                 | 9.0         |          |               |            |
| pH (S.U.)                   | XXX        | XXX           | Daily Min  | XXX             | Daily Max   | XXX      | 1/day         | Grab       |
|                             |            |               | 4.0        |                 |             |          |               | _          |
| DO                          | XXX        | XXX           | Daily Min  | XXX             | XXX         | XXX      | 1/day         | Grab       |
| TRC                         | xxx        | xxx           | xxx        | 0.5             | XXX         | 1.6      | 1/day         | Grab       |
|                             |            |               |            |                 |             | -        |               | 8-Hr       |
| CBOD5                       | 1.7        | XXX           | XXX        | 25.0            | XXX         | 50       | 2/month       | Composite  |
| BOD5                        |            |               |            |                 |             |          |               |            |
| Raw Sewage Influent         | Report     | Report        | XXX        | Report          | XXX         | XXX      | 1/month       | Grab       |
|                             |            |               |            |                 |             |          |               | 8-Hr       |
| TSS                         | 2.0        | XXX           | XXX        | 30.0            | XXX         | 60       | 2/month       | Composite  |
| TSS                         | _          | _             |            | _               |             |          |               |            |
| Raw Sewage Influent         | Report     | Report        | XXX        | Report          | XXX         | XXX      | 1/month       | Grab       |
| Fecal Coliform (No./100 ml) | V/V/       | V/V/          | V/V/       | 2000            | V/V/        | 40000    | 0/            | 01         |
| Oct 1 - Apr 30              | XXX        | XXX           | XXX        | Geo Mean        | XXX         | 10000    | 2/month       | Grab       |
| Fecal Coliform (No./100 ml) | xxx        | xxx           | xxx        | 200<br>Geo Mean | XXX         | 1000     | 2/month       | Grab       |
| May 1 - Sep 30              | ^^^        | ^^^           | ^^^        | Geo Mean        | ^^^         | 1000     | 2/111011111   | Grab       |
| E. Coli (No./100 ml)        | XXX        | XXX           | XXX        | XXX             | XXX         | Report   | 1/year        | Grab       |
|                             |            |               |            | Report          |             |          |               | 8-Hr       |
| Total Nitrogen              | XXX        | XXX           | XXX        | Avg Qrtly       | XXX         | XXX      | 1/quarter     | Composite  |
| Ammonia-Nitrogen            |            |               |            |                 |             |          |               | 8-Hr       |
| Nov 1 - Apr 30              | Report     | XXX           | XXX        | Report          | XXX         | XXX      | 2/month       | Composite  |
| Ammonia-Nitrogen            |            |               |            |                 |             |          |               | 8-Hr       |
| May 1 - Oct 31              | 1.3        | XXX           | XXX        | 19.5            | XXX         | 39       | 2/month       | Composite  |

## Outfall 001, Continued (from Permit Effective Date through Permit Expiration Date)

|                  |                    |                   | Effluent L | imitations         |             |                     | Monitoring Re            | quirements     |
|------------------|--------------------|-------------------|------------|--------------------|-------------|---------------------|--------------------------|----------------|
| Parameter        | Mass Units         | (lbs/day) (1)     |            | Concentrat         | ions (mg/L) |                     | Minimum (2)              | Required       |
| r ai ailletei    | Average<br>Monthly | Weekly<br>Average | Minimum    | Average<br>Monthly | Maximum     | Instant.<br>Maximum | Measurement<br>Frequency | Sample<br>Type |
|                  |                    |                   |            | Report             |             |                     |                          | 8-Hr           |
| Total Phosphorus | XXX                | XXX               | XXX        | Avg Qrtly          | XXX         | XXX                 | 1/quarter                | Composite      |
| Total Aluminum   | XXX                | XXX               | XXX        | Report<br>Annl Avg | XXX         | XXX                 | 1/year                   | Grab           |
|                  |                    |                   |            | Report             |             |                     |                          |                |
| Total Iron       | XXX                | XXX               | XXX        | Annl Avg           | XXX         | XXX                 | 1/year                   | Grab           |
|                  |                    |                   |            | Report             |             |                     |                          |                |
| Total Manganese  | XXX                | XXX               | XXX        | Annl Avg           | XXX         | XXX                 | 1/year                   | Grab           |

Compliance Sampling Location: at Outfall 001, after disinfection.

Flow is monitor only based on Chapter 92a.61. The limits for pH and Dissolved Oxygen are technology-based on Chapter 93.7. The Total Residual Chlorine (TRC) limits are technology-based on Chapter 92a.48. The limits for CBOD₅, Total Suspended Solids (TSS), and Fecal Coliforms are technology-based on Chapter 92a.47. The limits for Ammonia-Nitrogen are water quality-based on Chapter 93.7. Monitoring for E. Coli, Total Nitrogen, Total Phosphorus, Aluminum, Iron, and Manganese is based on Chapter 92a.61.

## Attachment 1

## **WQM 7.0 Effluent Limits**

|       | SWP Basin Stream |                  |                       | Stream Name<br>RICHEY RUN |                                      |                                  |                                  |
|-------|------------------|------------------|-----------------------|---------------------------|--------------------------------------|----------------------------------|----------------------------------|
| RMI   | Name             | Permit<br>Number | Disc<br>Flow<br>(mgd) | Parameter                 | Effl. Limit<br>30-day Ave.<br>(mg/L) | Effl. Limit<br>Maximum<br>(mg/L) | Effl. Limit<br>Minimum<br>(mg/L) |
| 3.900 | Mariasville STP  | PA0101907        | 0.012                 | CBOD5                     | 25                                   |                                  |                                  |
|       |                  |                  |                       | NH3-N                     | 20.52                                | 41.04                            |                                  |
|       |                  |                  |                       | Dissolved Oxygen          |                                      |                                  | 4                                |
|       |                  |                  |                       |                           |                                      |                                  |                                  |

## WQM 7.0 D.O.Simulation

| SWP Basin St             | ream Code<br>51144 |                |               | Stream Name<br>RICHEY RUN |                      |
|--------------------------|--------------------|----------------|---------------|---------------------------|----------------------|
| <u>RMI</u>               | Total Discharge    | Flow (mgd      | I) <u>Ana</u> | lysis Temperature (°C)    | Analysis pH          |
| 3.900                    | 0.012              | 2              |               | 20.591                    | 6.987                |
| Reach Width (ft)         | Reach De           | oth (ft)       |               | Reach WDRatio             | Reach Velocity (fps) |
| 7.470                    | 0.423              | 3              |               | 17.677                    | 0.050                |
| Reach CBOD5 (mg/L)       | Reach Kc (         | <u>1/days)</u> | <u>R</u>      | each NH3-N (mg/L)         | Reach Kn (1/days)    |
| 4.72                     | 0.283              |                |               | 2.42                      | 0.733                |
| Reach DO (mg/L)          | Reach Kr (         |                |               | Kr Equation               | Reach DO Goal (mg/L) |
| 7.742                    | 14.51              | 2              |               | Owens                     | 6                    |
| Reach Travel Time (days) |                    | Subreach       | Results       |                           |                      |
| 2.946                    | TravTime           | CBOD5          | NH3-N         | D.O.                      |                      |
|                          | (days)             | (mg/L)         | (mg/L)        | (mg/L)                    |                      |
|                          | 0.295              | 4.33           | 1.95          | 8.15                      |                      |
|                          | 0.589              | 3.97           | 1.57          | 8.15                      |                      |
|                          | 0.884              | 3.65           | 1.27          | 8.15                      |                      |
|                          | 1.178              | 3.35           | 1.02          | 8.15                      |                      |
|                          | 1.473              | 3.07           | 0.82          | 8.15                      |                      |
|                          | 1.767              | 2.82           | 0.66          | 8.15                      |                      |
|                          | 2.062              | 2.59           | 0.54          | 8.15                      |                      |
|                          | 2.356              | 2.37           | 0.43          | 8.15                      |                      |
|                          | 2.651              | 2.18           | 0.35          | 8.15                      |                      |
|                          | 2.946              | 2.00           | 0.28          | 8.15                      |                      |

## WQM 7.0 Modeling Specifications

| Parameters         | Both   | Use Inputted Q1-10 and Q30-10 Flows | ✓        |
|--------------------|--------|-------------------------------------|----------|
| WLA Method         | EMPR   | Use Inputted W/D Ratio              |          |
| Q1-10/Q7-10 Ratio  | 0.64   | Use Inputted Reach Travel Times     |          |
| Q30-10/Q7-10 Ratio | 1.36   | Temperature Adjust Kr               | <b>✓</b> |
| D.O. Saturation    | 90.00% | Use Balanced Technology             | ✓        |
| D.O. Goal          | 6      |                                     |          |

## Input Data WQM 7.0

|                          |              |                      |                      |                         |                         | at Dati     | 4 11 4.                         | 10 1 100     |                |                             |                  |                     |                |           |
|--------------------------|--------------|----------------------|----------------------|-------------------------|-------------------------|-------------|---------------------------------|--------------|----------------|-----------------------------|------------------|---------------------|----------------|-----------|
|                          | SWP<br>Basin |                      |                      | Stre                    | eam Name                |             | RMI                             |              | vation<br>(ft) | Drainage<br>Area<br>(sq mi) | Slope<br>(ft/ft) | PW<br>Withd<br>(mg  | Irawal         | App<br>FC |
|                          | 16G          | 511                  | 144 RICHE            | EY RUN                  |                         |             | 3.9                             | 00           | 1273.00        | 1.98                        | 0.0000           | 0                   | 0.00           | <b>✓</b>  |
|                          |              |                      |                      |                         | St                      | ream Dat    | ta                              |              |                |                             |                  |                     |                |           |
| Design<br>Cond.          | LFY          | Trib<br>Flow         | Stream<br>Flow       | Rch<br>Trav<br>Time     | Rch<br>Velocity         | WD<br>Ratio | Rch<br>Width                    | Rch<br>Depth | Ten            | <u>Tributary</u><br>np pH   | Te               | <u>Strear</u><br>mp | <u>n</u><br>pH |           |
| Cona.                    | (cfsm)       | (cfs)                | (cfs)                | (days)                  | (fps)                   |             | (ft)                            | (ft)         | (°C            | ;)                          | (°               | C)                  |                |           |
| Q7-10<br>Q1-10<br>Q30-10 | 0.070        | 0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00 | 0.000<br>0.000<br>0.000 | 0.000<br>0.000<br>0.000 | 0.0         | 0.00                            | 0.0          | 00 2           | 0.00 7.                     | 00               | 0.00                | 0.00           |           |
|                          |              |                      |                      |                         | Di                      | ischarge    | Data                            |              |                |                             |                  |                     | ]              |           |
|                          |              |                      | Name                 | Per                     | mit Numbe               | Disc        | Permitt<br>Disc<br>Flow<br>(mgd | Dis<br>Flo   | c Res          | Diserve Ter<br>actor        | mp               | Disc<br>pH          |                |           |
|                          |              | Maria                | sville STP           | PA                      | 0101907                 | 0.012       | 0.00                            | 0.0          | 0000           | 0.000                       | 25.00            | 6.90                |                |           |
|                          |              |                      |                      |                         | Pa                      | arameter    | Data                            |              |                |                             |                  |                     |                |           |
|                          |              |                      |                      | Paramete                | r Name                  |             |                                 | Trib<br>Conc | Stream<br>Conc | Fate<br>Coef                |                  |                     |                |           |
|                          | _            |                      | 12                   |                         |                         | (m          | ng/L) (I                        | mg/L)        | (mg/L)         | (1/days)                    |                  | _                   |                |           |
|                          |              |                      | CBOD5                |                         |                         |             | 25.00                           | 2.00         | 0.00           | 1.50                        |                  | _                   |                |           |
|                          |              |                      | Dissolved            | Oxygen                  |                         |             | 4.00                            | 8.24         | 0.00           | 0.00                        |                  |                     |                |           |
|                          |              |                      | NH3-N                |                         |                         |             | 25.00                           | 0.00         | 0.00           | 0.70                        |                  |                     |                |           |

## **Input Data WQM 7.0**

|                          |              |                      |                      |                         | шр              | ut Date     | A 88 GC                         | VI 7 .U      |                 |                             |                  |                       |                     |           |
|--------------------------|--------------|----------------------|----------------------|-------------------------|-----------------|-------------|---------------------------------|--------------|-----------------|-----------------------------|------------------|-----------------------|---------------------|-----------|
|                          | SWP<br>Basin |                      |                      | Str                     | eam Name        |             | RMI                             |              | evation<br>(ft) | Drainage<br>Area<br>(sq mi) | Slope<br>(ft/ft) | Witho                 | VS<br>drawal<br>gd) | App<br>FC |
|                          | 16G          | 511                  | 144 RICHE            | EY RUN                  |                 |             | 1.5                             | 00           | 1270.00         | 4.7                         | 7 0.000          | 000                   | 0.00                | V         |
| ) <u>-</u>               |              |                      |                      |                         | St              | ream Dat    | a                               |              |                 |                             |                  |                       |                     |           |
| Design                   | LFY          | Trib<br>Flow         | Stream<br>Flow       | Rch<br>Trav<br>Time     | Rch<br>Velocity | WD<br>Ratio | Rch<br>Width                    | Rch<br>Depth | Ten             | <u>Tributary</u><br>np p⊢   | 1                | <u>Strear</u><br>Femp | <u>m</u><br>pH      |           |
| Cond.                    | (cfsm)       | (cfs)                | (cfs)                | (days)                  | (fps)           |             | (ft)                            | (ft)         | (°C             | <b>(</b> )                  |                  | (°C)                  |                     |           |
| Q7-10<br>Q1-10<br>Q30-10 | 0.070        | 0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00 | 0.000<br>0.000<br>0.000 | 0.000           | 0.0         | 0.00                            | 0.0          | 00 2            | 0.00 7                      | .00              | 0.00                  | 0.00                |           |
|                          |              |                      |                      |                         | Di              | scharge I   | Data                            |              |                 |                             |                  |                       | 1                   |           |
|                          |              |                      | Name                 | Pe                      | rmit Number     | Disc        | Permiti<br>Disc<br>Flow<br>(mgc | Dis          | sc Res          | serve Te<br>ictor           | sc<br>mp<br>C)   | Disc<br>pH            |                     |           |
|                          |              | ×                    |                      |                         |                 | 0.0000      | 0.00                            | 0.0          | 0000            | 0.000                       | 25.00            | 7.00                  |                     |           |
|                          |              |                      |                      |                         | Pa              | rameter l   | Data                            |              |                 |                             |                  |                       |                     |           |
|                          |              |                      |                      | Paramete                | er Name         |             |                                 | Trib<br>Conc | Stream<br>Conc  | Fate<br>Coef                |                  |                       |                     |           |
|                          |              |                      |                      | . gramote               |                 | (m          | ıg/L) (                         | mg/L)        | (mg/L)          | (1/days)                    |                  |                       |                     |           |
|                          | -            |                      | CBOD5                |                         |                 | :           | 25.00                           | 2.00         | 0.00            | 1.50                        |                  |                       |                     |           |
|                          |              |                      | Dissolved            | Oxygen                  |                 |             | 3.00                            | 8.24         | 0.00            | 0.00                        |                  |                       |                     |           |
|                          |              |                      | NH3-N                |                         |                 | 1           | 25.00                           | 0.00         | 0.00            | 0.70                        |                  |                       |                     |           |

## WQM 7.0 Wasteload Allocations

| SWP Basin | Stream Code | Stream Name |
|-----------|-------------|-------------|
| 16G       | 51144       | RICHEY RUN  |

| RMI     | Discharge Name    | Baseline<br>Criterion<br>(mg/L)  | Baseline<br>WLA<br>(mg/L) | Multiple<br>Criterion<br>(mg/L) | Multiple<br>WLA<br>(mg/L) | Critical<br>Reach | Percent<br>Reduction |
|---------|-------------------|----------------------------------|---------------------------|---------------------------------|---------------------------|-------------------|----------------------|
| 3.90    | 0 Mariasville STP | 15.86                            | 50                        | 15.86                           | 50                        | 0                 | 0                    |
|         |                   |                                  |                           |                                 |                           |                   |                      |
| IH3-N ( | Chronic Allocati  | ons                              |                           |                                 |                           |                   |                      |
| IH3-N ( | Chronic Allocati  | Ons  Baseline  Criterion  (mg/L) | Baseline<br>WLA<br>(mg/L) | Multiple<br>Criterion<br>(mg/L) | Multiple<br>WLA<br>(mg/L) | Critical<br>Reach | Percent<br>Reduction |

## **Dissolved Oxygen Allocations**

|     |        |                 | CBC                | DD5                | NH:                | <u>3-N</u>         | Dissolved          | d Oxygen           | Critical | Percent   |  |
|-----|--------|-----------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------|-----------|--|
| No. | RMI    | Discharge Name  | Baseline<br>(mg/L) | Multiple<br>(mg/L) | Baseline<br>(mg/L) | Multiple<br>(mg/L) | Baseline<br>(mg/L) | Multiple<br>(mg/L) | Reach    | Reduction |  |
|     | 3.90 1 | Mariasville STP | 25                 | 25                 | 20.52              | 20.52              | 4                  | 4                  | 0        | 0         |  |

## WQM 7.0 Hydrodynamic Outputs

|       | 22             | <u>P Basin</u><br>16G | -                     | <u>m Code</u><br>1144    |                |       |       | <u>Stream</u><br>RICHEY |          |                       |                  |                |
|-------|----------------|-----------------------|-----------------------|--------------------------|----------------|-------|-------|-------------------------|----------|-----------------------|------------------|----------------|
| RMI   | Stream<br>Flow | PWS<br>With           | Net<br>Stream<br>Flow | Disc<br>Analysis<br>Flow | Reach<br>Slope | Depth | Width | W/D<br>Ratio            | Velocity | Reach<br>Trav<br>Time | Analysis<br>Temp | Analysis<br>pH |
|       | (cfs)          | (cfs)                 | (cfs)                 | (cfs)                    | (ft/ft)        | (ft)  | (ft)  |                         | (fps)    | (days)                | (°C)             |                |
| Q7-1  | 0 Flow         |                       |                       |                          |                |       |       |                         |          |                       |                  |                |
| 3.900 | 0.14           | 0.00                  | 0.14                  | .0186                    | 0.00024        | .423  | 7.47  | 17.68                   | 0.05     | 2.946                 | 20.59            | 6.99           |
| Q1-1  | 0 Flow         |                       |                       |                          |                |       |       |                         |          |                       |                  |                |
| 3.900 | 0.09           | 0.00                  | 0.09                  | .0186                    | 0.00024        | NA    | NA    | NA                      | 0.04     | 3.648                 | 20.87            | 6.98           |
| Q30-  | 10 Flow        | ,                     |                       |                          |                |       |       |                         |          |                       |                  |                |
| 3.900 | 0.19           | 0.00                  | 0.19                  | .0186                    | 0.00024        | NA    | NA    | NA                      | 0.06     | 2.524                 | 20.45            | 6.99           |

## Attachment 2

| TRC EVALUA      | ATION                           |   |                                |                 |                       |
|-----------------|---------------------------------|---|--------------------------------|-----------------|-----------------------|
| Input appropria | te values in <i>i</i>           | A3:A9 and D3:D9   |                                |                 |                       |
| 0.138           | = Q stream (                    | cfs)  | 0.5                            | = CV Daily      |                       |
| 0.012           | = Q discharg                    | je (MGD)  | 0.5                            | = CV Hourly     |                       |
| 30              | = no. sample                    | 8   | 1                              | = AFC_Partial I | Mix Factor            |
| 0.3             | = Chlorine D                    | emand of Stream   | 1                              | = CFC_Partial ( | Mix Factor            |
| 0               | = Chlorine D                    | emand of Discharge  | 15                             | = AFC_Criteria  | Compliance Time (min) |
| 0.5             | = BAT/BPJ V                     | alue  | 720                            | = CFC_Criteria  | Compliance Time (min) |
| 0               | = % Factor o                    | of Safety (FOS)   | 0                              | =Decay Coeffic  | cient (K)             |
| Source          | Reference                       | AFC Calculations  |                                | Reference       | CFC Calculations      |
| TRC             | 1.3.2.iii                       | WLA afc =   | 2.390                          | 1.3.2.iii       | WLA cfc = 2.323       |
| PENTOXSD TRG    | 5.1a                            | LTAMULT afc =   | 0.373                          | 5.1c            | LTAMULT cfc = 0.581   |
| PENTOXSD TRG    | 5.1b                            | LTA_afc=  | 0.891                          | 5.1d            | $LTA\_cfc = 1.350$    |
|                 |                                 |   |                                |                 |                       |
| Source          |                                 | Efflue  | nt Limit Calcu                 | 177.77.77.77.77 |                       |
| PENTOXSD TRG    | 5.1f                            |   | AML MULT =                     | 15(3)=155 A     |                       |
| PENTOXSD TRG    | 5.1g                            |   | LIMIT (mg/l) =                 |                 | BAT/BPJ               |
|                 |                                 | INST MAX  | LIMIT (mg/l) =                 | 1.635           |                       |
|                 |                                 |   |                                |                 |                       |
|                 |                                 |   |                                |                 |                       |
| WLA afc         | MANAGE SEASONS SEED BY ACCOUNTY | FC_tc)) + [(AFC_Yc*Qs*.019  |                                | _tc))           |                       |
|                 | 10 m                            | C_Yc*Qs*Xs/Qd)]*(1-FOS/10   | 26                             |                 |                       |
| LTAMULT afc     | 0559                            | (cvh^2+1))-2.326*LN(cvh^2+  | -1)^0.5)                       |                 |                       |
| LTA_afc         | wla_afc*LTA                     | MULT_afc  |                                |                 |                       |
| WLA_cfc         | ( 011/e(-k*C                    | FC_tc) + [(CFC_Yc*Qs*.011/  | Qd*e/-k*CFC                    | te))            |                       |
| 112/1_010       |                                 | C_Yc*Qs*Xs/Qd)]*(1-FOS/10   |                                |                 |                       |
| LTAMULT cfc     |                                 | (cvd^2/no_samples+1))-2.32  | and the research there are the | o samples+1)^(  | 0.5)                  |
| LTA_cfc         | wla_cfc*LTA                     | Ser reserve disagnina dell'international disconnection dell'international |                                |                 | •                     |
|                 |                                 |   |                                |                 |                       |
| AML MULT        |                                 | N((cvd^2/no_samples+1)^0.   |                                | ^2/no_samples   | +1))                  |
| AVG MON LIMIT   |                                 | J,MIN(LTA_afc,LTA_cfc)*AN   |                                |                 |                       |
| INST MAX LIMIT  | 1.5*((av_mo                     | n_limit/AML_MULT)/LTAMUL  | .T_afc)                        |                 |                       |
|                 |                                 |   |                                |                 |                       |

Attachment 3



Toxics Management Spreadsheet Version 1.3. March 2021

## **Discharge Information**

| Instructions | Discha  | rge Stream                      |                |                       |                                   |                  |
|--------------|---------|---------------------------------|----------------|-----------------------|-----------------------------------|------------------|
|              |         |                                 |                |                       |                                   |                  |
| Facility:    | Mariasv | lle STP                         |                | NPDES Permit No.: P.  | PA0101907                         | Outfall No.: 001 |
| Evaluation T | ype:    | <mark>Vlajor Sewage / In</mark> | dustrial Waste | Wastewater Descriptio | n: <mark>Non-municipal Sev</mark> | wage             |

|             |                  |          | Discharge | Characteris    | tics        |     |                   |                |
|-------------|------------------|----------|-----------|----------------|-------------|-----|-------------------|----------------|
| Design Flow | Hardness (mg/l)* | pH (SU)* | F         | Partial Mix Fa | actors (PMF | s)  | Complete Mix      | x Times (min)  |
| (MGD)*      | Hardness (mg/l)* | pn (50)  | AFC       | CFC            | THH         | CRL | Q <sub>7-10</sub> | Q <sub>h</sub> |
| 0.012       | 100              | 6.9      |           |                |             |     |                   |                |

|         |                                 |       |     |                     | 0 if lef     | t blank        | 0.5 if le   | eft blank    | 0             | if left blan  | k   | 1 if left        | t blank        |
|---------|---------------------------------|-------|-----|---------------------|--------------|----------------|-------------|--------------|---------------|---------------|-----|------------------|----------------|
|         | Discharge Pollutant             | Units | Max | x Discharge<br>Conc | Trib<br>Conc | Stream<br>Conc | Daily<br>CV | Hourly<br>CV | Strea<br>m CV | Fate<br>Coeff | FOS | Criteri<br>a Mod | Chem<br>Transl |
|         | Total Dissolved Solids (PWS)    | mg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 12      | Chloride (PWS)                  | mg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| ΙĦ      | Bromide                         | mg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| Group   | Sulfate (PWS)                   | mg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 4000    | Fluoride (PWS)                  | mg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
|         | Total Aluminum                  | mg/L  |     | 0.1                 |              |                |             |              |               |               |     |                  |                |
| 1       | Total Antimony                  | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Total Arsenic                   | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Total Barium                    | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Total Beryllium                 | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Total Boron                     | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Total Cadmium                   | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Total Chromium (III)            | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Hexavalent Chromium             | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
|         | Total Cobalt                    | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
|         | Total Copper                    | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 2       | Free Cyanide                    | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| Group 2 | Total Cyanide                   | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| ق       | Dissolved Iron                  | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| -       | Total Iron                      | mg/L  |     | 1.6                 |              |                |             |              |               |               |     |                  |                |
|         | Total Lead                      | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Total Manganese                 | mg/L  |     | 0.159               |              |                |             |              |               |               |     |                  |                |
| 1       | Total Mercury                   | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Total Nickel                    | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Total Phenols (Phenolics) (PWS) | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Total Selenium                  | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Total Silver                    | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Total Thallium                  | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Total Zinc                      | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
|         | Total Molybdenum                | μg/L  |     |                     |              |                |             |              |               |               |     |                  |                |
|         | Acrolein                        | μg/L  | ٧   |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Acrylamide                      | μg/L  | <   |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Acrylonitrile                   | μg/L  | <   |                     |              |                |             |              |               |               |     |                  |                |
| 1       | Benzene                         | μg/L  | <   |                     |              |                |             |              |               |               |     |                  |                |
|         | Bromoform                       | μg/L  | <   |                     |              |                |             |              |               |               |     |                  |                |

| 1        | Control Tata ablada  |              |   |   |   |   |  |
|----------|--|--------------|---|---|---|---|--|
|          | Carbon Tetrachloride   | μg/L         | < |   |   |   |  |
|          | Chlorobenzene  | μg/L         |   |   |   |   |  |
|          | Chlorodibromomethane   | μg/L         | < |   |   |   |  |
|          | Chloroethane   | μg/L         | < |   |   |   |  |
|          | 2-Chloroethyl Vinyl Ether  | μg/L         | < |   |   |   |  |
|          | Chloroform   | μg/L         | < |   |   |   |  |
|          | Dichlorobromomethane   | μg/L         | < |   |   |   |  |
|          | 1,1-Dichloroethane   | μg/L         | < |   |   |   |  |
| 102      | 1,2-Dichloroethane   | μg/L         | < |   | * |   |  |
| 53       | 1,1-Dichloroethylene   | μg/L         | < |   |   |   |  |
| Group    | 1,2-Dichloropropane  | μg/L         | < | <del>                                      </del> | - | _ |  |
| ច        |  |              |   |   |   |   |  |
| 1        | 1,3-Dichloropropylene  | μg/L         | < |   |   |   |  |
| 1        | 1,4-Dioxane  | μg/L         | < |   |   |   |  |
|          | Ethylbenzene   | μg/L         | < |   |   |   |  |
|          | Methyl Bromide   | μg/L         | < |   |   |   |  |
| 1        | Methyl Chloride  | μg/L         | < |   |   |   |  |
| 1        | Methylene Chloride   | μg/L         | < |   |   |   |  |
| 1        | 1,1,2,2-Tetrachloroethane  | μg/L         | < |   |   |   |  |
| 1        | Tetrachloroethylene  | µg/L         | < |   |   |   |  |
| 1        | Toluene  | µg/L         | < |   |   |   |  |
| 1        | 1,2-trans-Dichloroethylene   | µg/L         | < |   |   |   |  |
| 1        | 1,1,1-Trichloroethane  | μg/L<br>μg/L | < |   |   |   |  |
|          | The state of the s |              |   |   |   |   |  |
| 1        | 1,1,2-Trichloroethane  | μg/L         | < |   |   |   |  |
|          | Trichloroethylene  | μg/L         | < |   |   |   |  |
| <u> </u> | Vinyl Chloride   | μg/L         | < |   |   |   |  |
|          | 2-Chlorophenol   | μg/L         | < |   |   |   |  |
|          | 2,4-Dichlorophenol   | μg/L         | < |   |   |   |  |
| 1        | 2,4-Dimethylphenol   | μg/L         | < |   |   |   |  |
|          | 4,6-Dinitro-o-Cresol   | μg/L         | < |   |   |   |  |
| 4        | 2,4-Dinitrophenol  | μg/L         | < |   |   |   |  |
| Group    | 2-Nitrophenol  | µg/L         | < |   |   |   |  |
| I 유      | 4-Nitrophenol  | μg/L         | < |   |   |   |  |
| ١٧       | p-Chloro-m-Cresol  | µg/L         | < |   |   |   |  |
|          | Pentachlorophenol  |              | < | + + +   |   | - |  |
|          | Total District Control of Control | μg/L         | < |   |   | _ |  |
|          | Phenol   | μg/L         |   | + + +   |   | - |  |
| $\vdash$ | 2,4,6-Trichlorophenol  | μg/L         | < |   |   | _ |  |
| 1        | Acenaphthene   | μg/L         | < |   |   | _ |  |
|          | Acenaphthylene   | μg/L         | < |   |   |   |  |
|          | Anthracene   | μg/L         | < |   |   |   |  |
|          | Benzidine  | μg/L         | < |   |   |   |  |
| 1        | Benzo(a)Anthracene   | μg/L         | < |   |   |   |  |
| 1        | Benzo(a)Pyrene   | μg/L         | < |   |   |   |  |
| 1        | 3,4-Benzofluoranthene  | μg/L         | < |   |   |   |  |
| 1        | Benzo(ghi)Perylene   | μg/L         | < |   |   |   |  |
| 1        | Benzo(k)Fluoranthene   | µg/L         | < |   |   |   |  |
| 1        | Bis(2-Chloroethoxy)Methane   | μg/L         | < |   |   |   |  |
| 1        | Bis(2-Chloroethyl)Ether  | μg/L         | < |   | - |   |  |
| 1        | Bis(2-Chloroisopropyl)Ether  |              | < |   |   |   |  |
| 1        |  | μg/L         |   |   |   |   |  |
| 1        | Bis(2-Ethylhexyl)Phthalate   | μg/L         | < |   |   |   |  |
| 1        | 4-Bromophenyl Phenyl Ether   | μg/L         | < |   |   |   |  |
| 1        | Butyl Benzyl Phthalate   | μg/L         | < |   |   |   |  |
| 1        | 2-Chloronaphthalene  | μg/L         | < |   |   |   |  |
| 1        | 4-Chlorophenyl Phenyl Ether  | μg/L         | < |   |   |   |  |
| 1        | Chrysene   | μg/L         | < |   |   |   |  |
| 1        | Dibenzo(a,h)Anthrancene  | μg/L         | < |   |   |   |  |
| 1        | 1,2-Dichlorobenzene  | μg/L         | < |   |   |   |  |
| 1        | 1,3-Dichlorobenzene  | μg/L         | < |   |   |   |  |
| 1        | 1,4-Dichlorobenzene  | μg/L         | < |   |   |   |  |
| p 5      | 3,3-Dichlorobenzidine  | μg/L         | < |   |   |   |  |
| Group    | Diethyl Phthalate  | μg/L         | < |   |   |   |  |
| ច        | Dimethyl Phthalate   |              | < |   |   |   |  |
| 1        |  | μg/L         | _ |   |   |   |  |
| 1        | Di-n-Butyl Phthalate   | μg/L         | < |   |   |   |  |
| 1        | 2,4-Dinitrotoluene   | μg/L         | < |   |   |   |  |

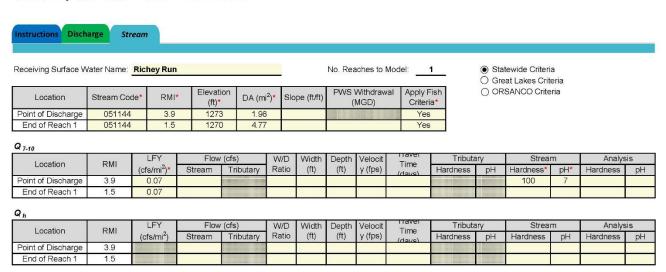
|          | 2,6-Dinitrotoluene                                | μg/L   | < |  |   |  |  |  |  |
|----------|---|--------|---|--|---|--|--|--|--|
|          | Di-n-Octyl Phthalate                              | μg/L   | < |  |   |  |  |  |  |
|          | 1,2-Diphenylhydrazine                             | µg/L   | < |  |   |  |  |  |  |
|          | Fluoranthene                                      | µg/L   | < |  |   |  |  |  |  |
|          | Fluorene  | μg/L   | < |  |   |  |  |  |  |
|          | Hexachlorobenzene                                 | μg/L   | < |  |   |  |  |  |  |
|          | Hexachlorobutadiene                               |        | < |  |   |  |  |  |  |
|          | ANNAMARIA CHIANGI STONO ESCANO CON ANCINE DIDICTO | μg/L   | < |  |   |  |  |  |  |
|          | Hexachlorocyclopentadiene                         | μg/L   |   |  | - |  |  |  |  |
|          | Hexachloroethane                                  | μg/L   | < |  |   |  |  |  |  |
|          | Indeno(1,2,3-cd)Pyrene                            | μg/L   | < |  |   |  |  |  |  |
|          | Isophorone  | μg/L   | < |  |   |  |  |  |  |
|          | Naphthalene                                       | μg/L   | < |  |   |  |  |  |  |
|          | Nitrobenzene                                      | μg/L   | < |  |   |  |  |  |  |
|          | n-Nitrosodimethylamine                            | μg/L   | < |  |   |  |  |  |  |
|          | n-Nitrosodi-n-Propylamine                         | μg/L   | < |  |   |  |  |  |  |
|          | n-Nitrosodiphenylamine                            | μg/L   | < |  |   |  |  |  |  |
|          | Phenanthrene                                      | µg/L   | < |  |   |  |  |  |  |
|          | Pyrene  | μg/L   | < |  |   |  |  |  |  |
|          | 1,2,4-Trichlorobenzene                            | μg/L   | < |  |   |  |  |  |  |
| _        | CONTROL PROPERTY.                                 |        | _ |  |   |  |  |  |  |
|          | Aldrin  | μg/L   | < |  |   |  |  |  |  |
|          | alpha-BHC   | μg/L   | < |  |   |  |  |  |  |
|          | beta-BHC  | μg/L   | < |  |   |  |  |  |  |
|          | gamma-BHC   | μg/L   | < |  |   |  |  |  |  |
|          | delta BHC   | μg/L   | < |  |   |  |  |  |  |
|          | Chlordane   | μg/L   | < |  |   |  |  |  |  |
|          | 4,4-DDT   | μg/L   | < |  |   |  |  |  |  |
|          | 4,4-DDE   | μg/L   | < |  |   |  |  |  |  |
|          | 4,4-DDD   | µg/L   | < |  |   |  |  |  |  |
|          | Dieldrin  | µg/L   | < |  |   |  |  |  |  |
|          | alpha-Endosulfan                                  | µg/L   | < |  |   |  |  |  |  |
|          |   |        | < |  | - |  |  |  |  |
| ٥        | beta-Endosulfan                                   | μg/L   | - |  |   |  |  |  |  |
| <u>d</u> | Endosulfan Sulfate                                | μg/L   | < |  |   |  |  |  |  |
| ~        | Endrin  | μg/L   | < |  |   |  |  |  |  |
|          | Endrin Aldehyde                                   | μg/L   | < |  |   |  |  |  |  |
|          | Heptachlor  | μg/L   | < |  |   |  |  |  |  |
|          | Heptachlor Epoxide                                | μg/L   | < |  |   |  |  |  |  |
|          | PCB-1016  | μg/L   | < |  |   |  |  |  |  |
|          | PCB-1221  | μg/L   | < |  |   |  |  |  |  |
|          | PCB-1232  | μg/L   | < |  |   |  |  |  |  |
|          | PCB-1242  | μg/L   | < |  |   |  |  |  |  |
|          | PCB-1248  | μg/L   | < |  |   | The state of the s |  |  |  |
|          | PCB-1254  | µg/L   | < |  |   |  |  |  |  |
|          | PCB-1260  | μg/L   | < |  |   |  |  |  |  |
|          |   |        |   |  | - |  |  |  |  |
|          | PCBs, Total                                       | μg/L   | < |  |   |  |  |  |  |
|          | Toxaphene   | μg/L   | < |  |   |  |  |  |  |
|          | 2,3,7,8-TCDD                                      | ng/L   | < |  |   |  |  |  |  |
|          | Gross Alpha                                       | pCi/L  |   |  |   |  |  |  |  |
| ,        | Total Beta  | pCi/L  | < |  |   |  |  |  |  |
| Group    | Radium 226/228                                    | pCi/L  | < |  |   |  |  |  |  |
| 2        | Total Strontium                                   | μg/L   | < |  |   |  |  |  |  |
| פ        | Total Uranium                                     | μg/L   | < |  |   |  |  |  |  |
|          | Osmotic Pressure                                  | mOs/kg |   |  |   |  |  |  |  |
|          |   |        |   |  |   |  |  |  |  |
|          |   |        |   |  |   |  |  |  |  |
|          |   |        |   |  |   |  |  |  |  |
|          |   |        |   |  |   |  |  |  |  |
|          |   |        |   |  |   |  |  |  |  |
|          |   |        |   |  |   |  |  |  |  |
|          |   |        |   |  |   |  |  |  |  |
|          |   |        |   |  |   |  |  |  |  |
|          |   |        |   |  |   |  |  |  |  |
|          |   |        |   |  |   |  |  |  |  |
|          |   |        |   |  |   |  |  |  |  |
|          |   |        |   |  |   |  |  |  |  |



Toxics Management Spreadsheet Version 1.3. March 2021

## Stream / Surface Water Information

Mariasville STP, NPDES Permit No. PA0101907, Outfall 001





Toxics Management Spreadsheet Version 1.3, March 2021

## **Model Results**

## Mariasville STP, NPDES Permit No. PA0101907, Outfall 001

| Instruction       | Results              |                   | RETUR      | RN TO INPU               | TS (                | SAVE AS PE               | OF                                      | PRINT            | •          | All   Inputs   | O Results         | O Limits      |                            |
|-------------------|----------------------|-------------------|------------|--------------------------|---------------------|--------------------------|---|------------------|------------|----------------|-------------------|---------------|----------------------------|
| ☑ Hydro           | dynamics             |                   |            |                          |                     |                          |   |                  |            |                |                   |               |                            |
| Q <sub>7-10</sub> |                      | DIAGO MACH        |            |                          | B: 1                |                          |   |                  |            |                | 1,7,1,2,1         | Haver         | 5 11 11 7                  |
| RMI               | Stream<br>Flow (cfs) | PWS Without (cfs) | arawai     | Net Stream<br>Flow (cfs) |                     | rge Analysis<br>ow (cfs) | Slope (ft/ft)                           | Depth (          | (ft) Width | (ft) W/D Ratio | Velocity<br>(fps) | Time          | Complete Mix Time<br>(min) |
| 3.9               | 0.14                 | ()                |            | 0.14                     |                     | 0.019                    | 0.00024                                 | 0.423            | 7.4        | 7 17.677       | 0.05              | 2.946         | 14.072                     |
| 1.5               | 0.33                 |                   |            | 0.334                    |                     |                          |   |                  |            |                |                   |               |                            |
| Q <sub>fi</sub>   |                      |                   |            |                          |                     |                          | _                                       |                  |            |                |                   |               |                            |
| RMI               | Stream<br>Flow (cfs) | PWS Without (cfs) | drawal     | Net Stream<br>Flow (cfs) |                     | rge Analysis<br>ow (cfs) | Slope (ft/ft)                           | Depth (          | (ft) Width | (ft) W/D Ratio | Velocity<br>(fps) | Time          | Complete Mix Time<br>(min) |
| 3.9               | 1.32                 |                   |            | 1.32                     |                     | 0.019                    | 0.00024                                 | 1.085            | 7.4        | 7 6.886        | 0.165             | 0.887         | 4.278                      |
| 1.5               | 2.849                |                   |            | 2.85                     |                     |                          |   |                  |            |                |                   |               |                            |
| ☑ Ai              | (A.C.) N.C. A        | CCT               | (min): 1   | 14.072<br>Stream         | PMF:                | 1 Fate                   | 100000000000000000000000000000000000000 | s Hardnes        |            | 100            | Analysis pH:      |               |                            |
|                   | Pollutants           |                   | Conc       | CV                       | (µg/L)              | Coef                     | (µg/L)                                  | (µg/L)           | WLA (µg/L) |                | C                 | omments       |                            |
|                   | Total Aluminu        | m                 | 0          | 0                        |                     | 0                        | 750                                     | 750              | 6,350      |                |                   |               |                            |
| -                 | Total Iron           |                   | 0          | 0                        |                     | 0                        | N/A<br>N/A                              | N/A<br>N/A       | N/A<br>N/A |                |                   |               |                            |
|                   | otal Mangane         | se                | 0          | 0                        |                     | U                        | N/A                                     | IV/A             | IN/A       |                |                   |               |                            |
| ☑ CI              | =c                   | ССТ               | Г (min): 1 | 14.072                   | PMF:                | 1                        | Analysi                                 | s Hardnes        | ss (mg/l): | 100            | Analysis pH:      | 6.99          |                            |
|                   | Pollutants           |                   | Conc       | Stream<br>CV             | Trib Conc<br>(µg/L) | Fate<br>Coef             |   | VQ Obj<br>(µg/L) | WLA (µg/L) |                | C                 | omments       |                            |
|                   | Total Aluminu        | m                 | 0          | 0                        |                     | 0                        | N/A                                     | N/A              | N/A        |                |                   |               |                            |
|                   | Total Iron           |                   | 0          | 0                        |                     | 0                        | 1,500                                   | 1,500            | 12,699     |                | WQC = 30 da       | ay average; F | PMF = 1                    |

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| Total Manganese           | 0              | 0                   |                       | 0            | N/A                  | N/A                         | N/A                       |                      |
|---------------------------|----------------|---------------------|-----------------------|--------------|----------------------|-----------------------------|---------------------------|----------------------|
|                           |                |                     |                       |              |                      |                             |                           |                      |
| ] <b>THH</b> (            | CCT (min): 14  | .072                | PMF:                  | 1            | Ana                  | alysis Hardne               | ess (mg/l):               | N/A Analysis pH: N/A |
| Pollutants                | Conc           | Stream<br>CV        | Trib Conc<br>(µg/L)   | Fate<br>Coef | WQC<br>(µg/L)        | WQ Obj<br>(µg/L)            | WLA (µg/L)                | Comments             |
| Total Aluminum            | 0              | 0                   |                       | 0            | N/A                  | N/A                         | N/A                       |                      |
| Total Iron                | 0              | 0                   |                       | 0            | N/A                  | N/A                         | N/A                       |                      |
| Total Manganese           | 0              | 0                   |                       | 0            | 1,000                | 1,000                       | 8,466                     |                      |
|                           |                | $\perp$             |                       |              |                      |                             |                           |                      |
| CRL                       | CCT (min): 4.  | 278                 | PMF:                  | 1            | Ana                  | alysis Hardne               | ess (mg/l):               | N/A Analysis pH: N/A |
| CRL C                     | Conc           | 278<br>Stream<br>CV | PMF: Trib Conc (µg/L) | 1 Fate Coef  | An:<br>WQC<br>(µg/L) | alysis Hardne WQ Obj (µg/L) | ess (mg/l):<br>WLA (µg/L) |                      |
| - 2002/00/2004/           | Stream         | Stream              | Trib Conc             |              | WQC                  | WQ Obj                      |                           |                      |
| Pollutants                | Conc<br>(ug/L) | Stream<br>CV        | Trib Conc             | Coef         | WQC<br>(µg/L)        | WQ Obj<br>(µg/L)            | WLA (µg/L)                |                      |
| Pollutants Total Aluminum | Conc<br>(ug/l) | Stream<br>CV<br>0   | Trib Conc             | Coef<br>0    | WQC<br>(µg/L)<br>N/A | WQ Obj<br>(µg/L)<br>N/A     | WLA (µg/L)                |                      |

No. Samples/Month: 4

| 2.5        |  | Mass Limits |        |                | Concentra | tion Limits |                    |         |     |                                    |  |
|------------|--|-------------|--------|----------------|-----------|-------------|--------------------|---------|-----|------------------------------------|--|
|            | Pollutants AML MDL (Ibs/day) (Ibs/day) A |             | AML    | MDL IMAX Units |           |             | Governing<br>WQBEL | Onments |     |                                    |  |
| Total Iron |  | Report      | Report | Report         | Report    | Report      | mg/L               | 12.7    | CFC | Discharge Conc > 10% WQBEL (no RP) |  |

## ☑ Other Pollutants without Limits or Monitoring

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

| Pollutants      | Governing<br>WQBEL | Units | Comments                   |  |  |  |
|-----------------|--------------------|-------|----------------------------|--|--|--|
| Total Aluminum  | 4.07               | mg/L  | Discharge Conc ≤ 10% WQBEL |  |  |  |
| Total Manganese | 8.47               | mg/L  | Discharge Conc ≤ 10% WQBEL |  |  |  |

**Model Results** 12/6/2022 Page 6

# NPDES Permit Fact Sheet Mariasville STP

### Attachment 3



WATER MANAGEMENT SYSTEM OPEN VIOLATIONS BY CLIENT

Client ID: 309251 Client: All

Open Violations: 27

| CLIENT ID | CLIENT      | PF ID  | FACILITY                     | PF KIND                                 | PF<br>STATUS | INSP<br>PROGRAM                      | PROGRAM<br>SPECIFIC ID | INSP ID | VIOLATION ID | INSPECTION<br>CATEGORY | VIOLATION<br>DATE | VIOLATION CODE | VIOLATION   | PF INSPECTOR    | INSP REGION |
|-----------|-------------|--------|------------------------------|---|--------------|--------------------------------------|------------------------|---------|--------------|------------------------|-------------------|----------------|---|-----------------|-------------|
| 309251    | AQUA PA INC | 582101 | NESHAMINY CREEK PUMPING      | Utilities/Sanitary Services             | Active       | Storage Tanks                        | 09-07280               | 3426328 | 975879       | PF                     | 07/13/2022        | 245.612        | Failure to meet performance and design standards  |                 | SERO        |
| 309251    | AQUA PA INC | 582101 | NESHAMINY CREEK PUMPING      | Utilities/Sanitary Services             | Active       | Storage Tanks                        | 09-07280               | 3426344 | 975880       | PF                     | 07/13/2022        | 245.612        | Failure to meet performance and design standards  |                 | SERO        |
| 309251    | AQUA PA INC | 6280   | AQUA PA MONROE MANOR         | Water Purveyor                          | Active       | Water Planning and<br>Conservation   | 102044-001             | 3304946 | 941335       | PF                     | 12/29/2021        | 110.301        | Reporting for all water withdrawals and usage   |                 | NCRO        |
| 309251    | AQUA PA INC | 263947 | AQUA PA BRISTOL              | Community                               | Active       | Safe Drinking Water                  | 1090001                | 3402121 | 963816       | PF                     | 08/04/2022        | C2B            | FAILURE TO FOLLOW APPROVED METHODS FOR SAMPLING AND ANALYSIS  | YANOS,SCOTT     | SERO        |
| 309251    | AQUA PA INC | 257478 | AQUA PA MAIN SYSTEM          | Community                               | Active       | Safe Drinking Water                  | 1460073                | 3312991 | 943314       | PF                     | 01/27/2022        | C2A            | FAILURE TO CONDUCT PERFORMANCE MONITORING   | FITZGERALD,NOAH | SERO        |
| 309251    | AQUA PA INC | 257478 | AQUA PA MAIN SYSTEM          | Community                               | Active       | Safe Drinking Water                  | 1460073                | 3312991 | 943315       | PF                     | 01/27/2022        | C2D            | FAILURE TO CALIBRATE TURBIDIMETERS USED FOR COMPLIANCE MONITORING   | FITZGERALD,NOAH | SERO        |
| 309251    | AQUA PA INC | 585809 | PICKERING CREEK PLT WEST     | Utilities/Sanitary Services             | Active       | Storage Tanks                        | 15-07278               | 3429034 | 970391       | PF                     | 07/13/2022        | 245.612        | Failure to meet performance and design standards  |                 | SERO        |
| 309251    | AQUA PA INC | 585809 | PICKERING CREEK PLT WEST     | Utilities/Sanitary Services             | Active       | Storage Tanks                        | 15-07278               | 3429039 | 970392       | PF                     | 07/13/2022        | 245.612        | Failure to meet performance and design standards  |                 | SERO        |
| 309251    | AQUA PA INC | 270196 | AQUA PA FIELDCREST           | Community                               | Active       | Safe Drinking Water                  | 2400012                | 3411662 | 965914       | PF                     | 08/16/2022        | C1A            | FAILURE TO MEET DESIGN AND CONSTRUCTION STANDARDS   | SUPPLEE, JOHN   | NERO        |
| 309251    | AQUA PA INC | 270196 | AQUA PA FIELDCREST           | Community                               | Active       | Safe Drinking Water                  | 2400012                | 3411662 | 965915       | PF                     | 08/16/2022        | C1F            | CROSS-CONNECTIONS EXIST WITHOUT PROPER BACKFLOW<br>PROTECTION   | SUPPLEE, JOHN   | NERO        |
| 309251    | AQUA PA INC | 270196 | AQUA PA FIELDCREST           | Community                               | Active       | Safe Drinking Water                  | 2400012                | 3411662 | 965916       | PF                     | 08/16/2022        | C4A            | FAILURE TO OPERATE AND MAINTAIN THE WATER SYSTEM  | SUPPLEE, JOHN   | NERO        |
| 309251    | AQUA PA INC | 573487 | AQUA PA WILD PINES WATER SYS | Community                               | Active       | Safe Drinking Water                  | 2450141                | 2992056 | 875712       | PF                     | 02/04/2020        | C1A            | FAILURE TO MEET DESIGN AND CONSTRUCTION STANDARDS   | HOELPER, ADAM   | NERO        |
| 309251    | AQUA PA INC | 573487 | AQUA PA WILD PINES WATER SYS | Community                               | Active       | Safe Drinking Water                  | 2450141                | 2992056 | 875713       | PF                     | 02/04/2020        | C4A            | FAILURE TO OPERATE AND MAINTAIN THE WATER SYSTEM  | HOELPER, ADAM   | NERO        |
| 309251    | AQUA PA INC |        |                              |   |              | WPC State Water<br>Pollution Control | 309251                 | 3386932 | 960696       | CInt                   | 06/13/2022        | CSL301         | CSL - Unauthorized, unpermitted discharge of industrial wastes to<br>waters of the Commonwealth           |                 | SERO        |
| 309251    | AQUA PA INC |        |                              |   |              | WPC State Water<br>Pollution Control | 309251                 | 3386932 | 960697       | Clnt                   | 06/13/2022        | CSL611         | CSL - Failure to comply with terms and conditions of a WQM permit   |                 | SERO        |
| 309251    | AQUA PA INC |        |                              |   |              | WPC State Water<br>Pollution Control | 309251                 | 3386932 | 960698       | CInt                   | 06/13/2022        | 91.34(A)       | 91 - Failure to take necessary measures to prevent pollutants from<br>reaching waters of the Commonwealth |                 | SERO        |
| 309251    | AQUA PA INC |        |                              |   |              | WPC State Water<br>Pollution Control | 309251                 | 3386932 | 960699       | Clnt                   | 06/13/2022        | CSL402(B)2     | CSL - Failure to comply with the terms and conditions of a permit or<br>order                             |                 | SERO        |
| 309251    | AQUA PA INC | 244374 | AQUA PA MT JEWETT            | Community                               | Active       | Safe Drinking Water                  | 6420018                | 3347490 | 951537       | PF                     | 04/13/2022        | C4A            | FAILURE TO OPERATE AND MAINTAIN THE WATER SYSTEM  | SEDLAK, WILLIAM | NWRO        |
| 309251    | AQUA PA INC | 244374 | AQUA PA MT JEWETT            | Community                               | Active       | Safe Drinking Water                  | 6420018                | 3347490 | 951538       | PF                     | 04/13/2022        | C1A            | FAILURE TO MEET DESIGN AND CONSTRUCTION STANDARDS   | SEDLAK, WILLIAM | NWRO        |
| 309251    | AQUA PA INC | 743918 | SR 3017 WATERMAIN            | Stormwater-Construction<br>(Non-Phased) | Active       | WPC Erosion &<br>Sediment Control    | PAI024511002           | 3461689 | 976494       | PF                     | 11/09/2022        | 92A.62         | 92a - Failure to pay annual fee for individual NPDES permit   |                 | NERO        |
| 309251    | AQUA PA INC | 283005 | AQUA PA CLARENDON            | Community                               | Active       | Safe Drinking Water                  | SM2134712              | 3272399 | 934489       | PF                     | 10/27/2021        | 02             | EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL   | POYER, ALAN     | NWRO        |
| 309251    | AQUA PA INC | 283005 | AQUA PA CLARENDON            | Community                               | Active       | Safe Drinking Water                  | SM2210699              | 3314631 | 943637       | PF                     | 01/31/2022        | 02             | EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL   | POYER, ALAN     | NWRO        |
| 309251    | AQUA PA INC | 283005 | AQUA PA CLARENDON            | Community                               | Active       | Safe Drinking Water                  | SM2210700              | 3314628 | 943636       | PF                     | 01/31/2022        | 02             | EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT<br>LEVEL  | POYER, ALAN     | NWRO        |
| 309251    | AQUA PA INC | 283005 | AQUA PA CLARENDON            | Community                               | Active       | Safe Drinking Water                  | SM2210703              | 3314627 | 943635       | PF                     | 01/31/2022        | 02             | EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT<br>LEVEL  | POYER, ALAN     | NWRO        |
| 309251    | AQUA PA INC | 283005 | AQUA PA CLARENDON            | Community                               | Active       | Safe Drinking Water                  | SM2221526              | 3364776 | 956058       | PF                     | 05/19/2022        | 02             | EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL   | POYER, ALAN     | NWRO        |
| 309251    | AQUA PA INC | 283005 | AQUA PA CLARENDON            | Community                               | Active       | Safe Drinking Water                  | SM2221527              | 3364779 | 956059       | PF                     | 05/19/2022        | 02             | EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL   | POYER, ALAN     | NWRO        |
| 309251    | AQUA PA INC | 283005 | AQUA PA CLARENDON            | Community                               | Active       | Safe Drinking Water                  | SM2221530              | 3364781 | 956060       | PF                     | 05/19/2022        | 02             | EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL   | POYER, ALAN     | NWRO        |