

Application Type Renewal  
 Facility Type Non-Municipal  
 Major / Minor Minor

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0051268  
 APS ID 1058375  
 Authorization ID 1387763

**Applicant and Facility Information**

|                           |   |                  |  |
|---------------------------|---|------------------|--|
| Applicant Name            | <u>PA DCNR – Bureau of State Parks</u>                            | Facility Name    | <u>Washington Crossing Historic Park Lower WWTP</u>            |
| Applicant Address         | <u>2808 Three Mile Run Road</u><br><u>Perkasie, PA 18944-2065</u> | Facility Address | <u>1112 River Road</u><br><u>Washington Crossing, PA 18977</u> |
| Applicant Contact         | <u>Bilal Baqai</u>  | Facility Contact | <u>Marisa Sprowles</u>   |
| Applicant Phone           | <u>(267) 309-3092</u>   | Facility Phone   | <u>(215) 493-4076</u>  |
| Client ID                 | <u>52524</u>  | Site ID          | <u>503122</u>  |
| Ch 94 Load Status         | <u></u>   | Municipality     | <u>Upper Makefield Township</u>                                |
| Connection Status         | <u></u>   | County           | <u>Bucks</u>   |
| Date Application Received | <u>February 23, 2022</u>  | EPA Waived?      | <u>Yes</u>   |
| Date Application Accepted | <u></u>   | If No, Reason    | <u></u>  |
| Purpose of Application    | <u>Permit renewal</u>   |                  |  |

**Summary of Review**

The applicant requests renewal of an NPDES permit to discharge 9,000 GPD of treated sewage into Delaware River from the sewage treatment plant serving Washington Crossing Historic Park.

The treatment plant consists of a bar screen, EQ tanks, aeration tank, clarifier, chlorination tank, and sludge holding tank.

The sewage treatment plant is designed for 36,000 GPD. The discharge from the facility has greatly reduced due to reduction in activities at the Washington Crossing Park. Flows have been diminished to the point that there is either no discharge, or a very small discharge.

Discharge is generally in compliance with the permit limits. Effluent limits for all the parameters rolled over in this permit renewal. Quarterly monitoring for E. Coli has been added in this permit renewal and is in consistent with SOP.

The discharge is located in the Delaware River – 2E watershed. This part of the Delaware River has been designated as “Special Protection Water” by Delaware River Basin Commission (DRBC). Therefore, any increase or expansion in the flow will result into more stringent effluent limits in the future.

Sludge use and disposal description and location(s): Sludges is sent off-site for disposal.

| Approve | Deny | Signatures  | Date       |
|---------|------|---|------------|
| X       |      | <i>Ketan Thaker</i><br>Ketan Thaker / Project Manager                         | 4/19/2022  |
| X       |      | <i>Pravin Patel</i><br>Pravin C. Patel, P.E. / Environmental Engineer Manager | 04/19/2022 |

**Summary of Review**

Following are effluent limits:

| PARAMETER                   | EFFLUENT LIMITS (Av. Mo. In mg/l) | BASIS        |
|-----------------------------|-----------------------------------|--------------|
| CBOD5                       | 25                                | 92a.47       |
| Total Suspended Solids      | 30                                | 92a.47       |
| Ammonia-Nitrogen            | 20                                | BPJ          |
| Dissolved Oxygen            | 4.0 Minimum                       | BPJ          |
| Fecal Coliform (No./100 ml) | 200 Geo Mean                      | 92a.47       |
| Total Residual Chlorine     | 0.5                               | 92a.47-48    |
| pH (SU)                     | 6.0 to 9.0 SU at all times        | 92a.47, 95.2 |
| Total Phosphorus            | 2.0                               | 92a.61       |
| Total Nitrogen              | Report                            | 92a.61       |
| E. Coli                     | Report                            | 92a.47       |

Act-14 Notification to Upper Makefield Township on February 3, 2022.  
 Act-14 Notification to Bucks County on February 3, 2022.

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.

**Discharge, Receiving Waters and Water Supply Information**

|  |                      |                   |                        |
|--|----------------------|-------------------|------------------------|
| Outfall No.                                    | <u>001</u>           | Design Flow (MGD) | <u>.009</u>            |
| Latitude                                       | <u>40° 18' 2.65"</u> | Longitude         | <u>-74° 52' 30.01"</u> |
| Quad Name                                      | _____                | Quad Code         | _____                  |
| Wastewater Description: <u>Sewage Effluent</u> |                      |                   |                        |

|                              |                                 |                              |                |
|------------------------------|---------------------------------|------------------------------|----------------|
| Receiving Waters             | <u>Delaware River (WWF, MF)</u> | Stream Code                  | <u>00002</u>   |
| NHD Com ID                   | <u>26049750</u>                 | RMI                          | _____          |
| Drainage Area                | _____                           | Yield (cfs/mi <sup>2</sup> ) | _____          |
| Q <sub>7-10</sub> Flow (cfs) | _____                           | Q <sub>7-10</sub> Basis      | _____          |
| Elevation (ft)               | _____                           | Slope (ft/ft)                | _____          |
| Watershed No.                | <u>2-E</u>                      | Chapter 93 Class.            | <u>WWF, MF</u> |
| Existing Use                 | _____                           | Existing Use Qualifier       | _____          |
| Exceptions to Use            | _____                           | Exceptions to Criteria       | _____          |

|                         |   |
|-------------------------|---|
| Assessment Status       | <u>Impaired</u>   |
| Cause(s) of Impairment  | <u>MERCURY</u>  |
| Source(s) of Impairment | <u>SOURCE UNKNOWN</u>                                     |
| TMDL Status             | <u>Final</u> Name <u>Delaware River Estuary PCB TMDLs</u> |

| Background/Ambient Data | Data Source |
|-------------------------|-------------|
| pH (SU)                 | _____       |
| Temperature (°F)        | _____       |
| Hardness (mg/L)         | _____       |
| Other:                  | _____       |

|   |  |
|---|--|
| Nearest Downstream Public Water Supply Intake |  |
| PWS Waters                                    | _____ Flow at Intake (cfs) _____       |
| PWS RMI                                       | _____ Distance from Outfall (mi) _____ |

Compliance History

DMR Data for Outfall 001 (from March 1, 2021 to February 28, 2022)

| Parameter  | FEB-22 | JAN-22 | DEC-21 | NOV-21 | OCT-21 | SEP-21 | AUG-21 | JUL-21 | JUN-21 | MAY-21 | APR-21 | MAR-21 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Flow (GPD)<br>Average Monthly                              |        |        |        | 0.0008 | 0.0005 | 1000   | 1300   | 0.002  | 1500   | 1100   |        |        |
| pH (S.U.)<br>Instantaneous<br>Minimum                      |        |        |        | 7.6    | 7.3    | 6.8    | 7.1    | 7.1    | 6.8    | 7.4    |        |        |
| pH (S.U.)<br>Instantaneous<br>Maximum                      |        |        |        | 8.0    | 7.7    | 7.5    | 8.0    | 8.2    | 7.8    | 8.3    |        |        |
| DO (mg/L)<br>Minimum                                       |        |        |        | 7.3    | 6.7    | 4.9    | 6.6    | 6.6    | 5.9    | 4.4    |        |        |
| TRC (mg/L)<br>Average Monthly                              |        |        |        | 0.3    | 0.24   | 0.2    | 0.2    | 0.1    | 0.13   | 0.3    |        |        |
| TRC (mg/L)<br>Instantaneous<br>Maximum                     |        |        |        | 0.6    | 0.6    | 0.4    | 0.4    | 0.2    | 0.5    | 0.6    |        |        |
| CBOD5 (lbs/day)<br>Average Monthly                         |        |        |        | 0.001  | 0.015  | 0.013  | 0.02   | 0.03   | 0.02   | 0.08   |        |        |
| CBOD5 (mg/L)<br>Average Monthly                            |        |        |        | 1.72   | 3.7    | 1.53   | 2.25   | 1.85   | 1.8    | 8.2    |        |        |
| TSS (lbs/day)<br>Average Monthly                           |        |        |        | 0.10   | 0.03   | 0.042  | 0.05   | 0.10   | 0.10   | 0.10   |        |        |
| TSS (mg/L)<br>Average Monthly                              |        |        |        | < 15.0 | 7.0    | 5.0    | < 5.0  | < 5.0  | 5.0    | 11.0   |        |        |
| Fecal Coliform<br>(No./100 ml)<br>Geometric Mean           |        |        |        | < 10   | < 10   | 10     | 33.2   | 5.0    | < 10   | < 10   |        |        |
| Fecal Coliform<br>(No./100 ml)<br>90% of Samples           |        |        |        | < 10   | < 10   |        |        |        |        |        |        |        |
| Fecal Coliform<br>(No./100 ml)<br>Instantaneous<br>Maximum |        |        |        |        |        | < 10   | 110    | 5.0    | < 10   | 10     |        |        |
| Total Nitrogen (mg/L)<br>Daily Maximum                     |        |        |        |        |        | 1.18   |        |        | 27.99  |        |        |        |

**NPDES Permit Fact Sheet  
Washington Crossing Historic Park**

**NPDES Permit No. PA0051268**

|  |  |  |  |       |       |       |       |       |       |       |  |  |
|--|--|--|--|-------|-------|-------|-------|-------|-------|-------|--|--|
| Ammonia (lbs/day)<br>Average Monthly             |  |  |  | 0.001 | 0.004 | 0.002 | 0.006 | 0.01  | 0.001 | 0.23  |  |  |
| Ammonia (mg/L)<br>Average Monthly                |  |  |  | 0.12  | 0.92  | 0.25  | 0.55  | 0.53  | 0.09  | 24.63 |  |  |
| Total Phosphorus<br>(lbs/day)<br>Average Monthly |  |  |  | 0.001 | 0.001 | 0.001 | 0.002 | 0.01  | 0.01  | 0.01  |  |  |
| Total Phosphorus<br>(mg/L)<br>Average Monthly    |  |  |  | 0.142 | 0.16  | 0.169 | 0.17  | 0.505 | 0.643 | 1.04  |  |  |

**Compliance History**

**Effluent Violations for Outfall 001, from: April 1, 2021 To: February 28, 2022**

| Parameter | Date     | SBC    | DMR Value | Units | Limit Value | Units |
|-----------|----------|--------|-----------|-------|-------------|-------|
| Ammonia   | 05/31/21 | Avg Mo | 24.63     | mg/L  | 20.0        | mg/L  |

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

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

| Parameter                                     | Effluent Limitations                |                   |                       |                     |         |                     | Monitoring Requirements                            |                            |
|---|-------------------------------------|-------------------|-----------------------|---------------------|---------|---------------------|--|----------------------------|
|   | Mass Units (lbs/day) <sup>(1)</sup> |                   | Concentrations (mg/L) |                     |         |                     | Minimum <sup>(2)</sup><br>Measurement<br>Frequency | Required<br>Sample<br>Type |
|   | Average<br>Monthly                  | Average<br>Weekly | Minimum               | Average<br>Monthly  | Maximum | Instant.<br>Maximum |  |                            |
| Flow (GPD)                                    | Report                              | XXX               | XXX                   | XXX                 | XXX     | XXX                 | 1/week   | Measured                   |
| pH (S.U.)                                     | XXX                                 | XXX               | 6.0<br>Inst Min       | XXX                 | XXX     | 9.0                 | 1/day  | Grab                       |
| DO  | XXX                                 | XXX               | 4.0<br>Inst Min       | XXX                 | XXX     | XXX                 | 1/day  | Grab                       |
| TRC   | XXX                                 | XXX               | XXX                   | 0.5                 | XXX     | 1.2                 | 1/day  | Grab                       |
| CBOD5   | 2.0                                 | XXX               | XXX                   | 25.0                | XXX     | 50                  | 2/month  | 8-Hr<br>Composite          |
| TSS   | 2.25                                | XXX               | XXX                   | 30.0                | XXX     | 60                  | 2/month  | 8-Hr<br>Composite          |
| Fecal Coliform (No./100 ml)<br>Oct 1 - Apr 30 | XXX                                 | XXX               | XXX                   | 200<br>Geo Mean     | XXX     | 1000                | 2/month  | Grab                       |
| Fecal Coliform (No./100 ml)<br>May 1 - Sep 30 | XXX                                 | XXX               | XXX                   | 200<br>Geo Mean     | XXX     | 1000                | 2/month  | Grab                       |
| E. Coli (No./100 ml)                          | XXX                                 | XXX               | XXX                   | XXX                 | XXX     | Report              | 1/quarter  | Grab                       |
| Total Nitrogen                                | XXX                                 | XXX               | XXX                   | Report<br>Avg Qrtly | XXX     | XXX                 | 1/quarter  | Grab                       |
| Ammonia                                       | 2.0                                 | XXX               | XXX                   | 20.0                | XXX     | 40                  | 2/month  | 8-Hr<br>Composite          |
| Total Phosphorus                              | 0.30                                | XXX               | XXX                   | 2.0                 | XXX     | 4                   | 2/month  | 8-Hr<br>Composite          |