

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

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0042889  
 APS ID 999374  
 Authorization ID 1283820

**Applicant and Facility Information**

|                           |  |                  |  |
|---------------------------|--|------------------|--|
| Applicant Name            | <u>Octorara Area School District</u>                     | Facility Name    | <u>Octorara School District STP</u>                      |
| Applicant Address         | <u>228 Highland Road</u><br><u>Atglen, PA 19310-1603</u> | Facility Address | <u>228 Highland Road</u><br><u>Atglen, PA 19310-1603</u> |
| Applicant Contact         | <u>Jeff Curtis</u>                                       | Facility Contact | <u>Arthur Tate</u>                                       |
| Applicant Phone           | <u>(610) 593-8238</u>                                    | Facility Phone   | <u>(215) 256-0042</u>                                    |
| Client ID                 | <u>83293</u>   | Site ID          | <u>257965</u>  |
| Ch 94 Load Status         | <u>Not Overloaded</u>                                    | Municipality     | <u>West Fallowfield Township</u>                         |
| Connection Status         |  | County           | <u>Chester</u>   |
| Date Application Received | <u>July 24, 2019</u>                                     | EPA Waived?      | <u>Yes</u>   |
| Date Application Accepted |  | If No, Reason    |  |
| Purpose of Application    | <u>Permit Renewal.</u>                                   |                  |  |

**Summary of Review**

The permittee has submitted NPDES permit renewal application to discharge sewage effluent to UNT Knight Run through Outfall 001.

The treatment facility consists of equalization, extended aeration, settling tank, sand filters, chlorine contact, post aeration and dichlorination.

DEP has conducted on 09/10/19. Copy of the inspection report is attached.



Octorara STP INSP  
9.10.19.pdf

Based on the site inspection, facility's comminutor does not work and is utilizing the bypass channel.

This facility's discharges to Chesapeake Bay watershed that has an implementation Plan (dated November 9, 2018) described below

For Phase 5 sewage facilities with individual permits (average annual design flow on August 29, 2005 > 0.002 MGD and < 0.2 MGD), DEP will issue individual permits with monitoring and reporting for TN and TP throughout the permit term at a frequency no less than annually, unless 1) the facility has already conducted at least two years of nutrient monitoring and 2) a summary of the monitoring results are included in the next permit's fact sheet. If, however, Phase 5 facilities choose to expand, the renewed or amended permits will contain Cap Loads based on the lesser of a) existing TN/TP concentrations at current design average annual flow or b) 7,306 lbs/yr TN and 974 lbs/yr TP.

However, we have continued annual monitoring of TN in this renewal to have updated data.

| Approve | Deny | Signatures  | Date              |
|---------|------|---|-------------------|
| X       |      | Begay Omuralieva / Environmental Engineering Specialist /s/ | November 14, 2019 |
| X       |      | Pravin C. Patel, P.E. / Environmental Engineer Manager /s/  | November 15, 2019 |

### Summary of Review

Based on review of the last 4 years the TN and TP ave. loading is 11.6 lbs./day. and 0.1 lbs./day, respectively. (TN and TP summary is attached)



TN results for 2015 -  
2019.xls



TP summary  
2015-2019.xls

There is no change on quality and quantity of the effluent therefore previously established effluent limits and monitoring requirements will be proposed in the draft permit as listed in p.6 of this fact sheet.

### 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>.03</u>                           |
| Latitude   | <u>39° 55' 7.54"</u>                             | Longitude                    | <u>-75° 57' 9.84"</u>                |
| Quad Name  | _____  | Quad Code                    | _____                                |
| Wastewater Description: <u>Sewage Effluent</u>           |  |                              |                                      |
| Receiving Waters   | <u>Unnamed Tributary to Knight Run (TSF, MF)</u> | Stream Code                  | <u>07123</u>                         |
| NHD Com ID   | <u>57466009</u>                                  | RMI                          | <u>0.65</u>                          |
| 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>7-K</u>                                       | Chapter 93 Class.            | <u>TSF, MF</u>                       |
| Existing Use   | _____  | Existing Use Qualifier       | _____                                |
| Exceptions to Use  | _____  | Exceptions to Criteria       | _____                                |
| Assessment Status  | <u>Attaining Use(s)</u>                          |                              |                                      |
| Cause(s) of Impairment                                   | _____  |                              |                                      |
| Source(s) of Impairment                                  | _____  |                              |                                      |
| TMDL Status  | <u>Tentative</u>                                 | Name                         | <u>Octoraro Creek Watershed TMDL</u> |
|  | <u>Final</u>                                     |                              | <u>Chesapeake Bay TMDL</u>           |

Changes Since Last Permit Issuance: none

| Treatment Facility Summary  |                                   |                                       |                            |                               |
|---|-----------------------------------|---------------------------------------|----------------------------|-------------------------------|
| <b>Treatment Facility Name:</b> Octorara Area School District STP |                                   |                                       |                            |                               |
| <b>WQM Permit No.</b>   | <b>Issuance Date</b>              |                                       |                            |                               |
| 1503416   | 12/23/2003                        |                                       |                            |                               |
|   |                                   |                                       |                            |                               |
| <b>Waste Type</b>   | <b>Degree of Treatment</b>        | <b>Process Type</b>                   | <b>Disinfection</b>        | <b>Avg Annual Flow (MGD)</b>  |
| Sewage  | Tertiary                          | Extended Aeration With Solids Removal | Hypochlorite               | 0.03                          |
|   |                                   |                                       |                            |                               |
| <b>Hydraulic Capacity (MGD)</b>                                   | <b>Organic Capacity (lbs/day)</b> | <b>Load Status</b>                    | <b>Biosolids Treatment</b> | <b>Biosolids Use/Disposal</b> |
| 0.03  |                                   | Not Overloaded                        | Holding Tank               | Other WWTP                    |

Changes Since Last Permit Issuance: none

Compliance History

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

| Parameter  | JUL-19 | JUN-19 | MAY-19 | APR-19 | MAR-19 | FEB-19 | JAN-19 | DEC-18 | NOV-18 | OCT-18 | SEP-18 | AUG-18 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Flow (GPD)<br>Average Monthly                              | 0.0054 | 0.0091 | 0.0136 | 0.0128 | 0.0116 | 0.0101 | 0.0121 | 0.0137 | 0.0091 | 0.0109 | 0.0122 | 0.0054 |
| Flow (GPD)<br>Daily Maximum                                | 0.0262 | 0.0348 | 0.0245 | 0.0243 | 0.0208 | 0.018  | 0.025  | 0.0313 | 0.0196 | 0.0238 | 0.0202 | 0.019  |
| pH (S.U.)<br>Instantaneous<br>Minimum                      | 6.4    | 6.6    | 6.9    | 6.9    | 6.9    | 6.7    | 6.6    | 6.5    | 6.5    | 6.7    | 6.8    | 6.5    |
| pH (S.U.)<br>Instantaneous<br>Maximum                      | 8.0    | 7.7    | 7.6    | 7.8    | 7.5    | 7.7    | 7.5    | 7.8    | 7.1    | 7.4    | 7.2    | 7.6    |
| DO (mg/L)<br>Minimum                                       | 6.3    | 5.6    | 6.3    | 6.3    | 7.9    | 7.6    | 7.5    | 7.5    | 7.9    | 6.1    | 6.4    | 7.0    |
| TRC (mg/L)<br>Average Monthly                              | < 0.02 | < 0.02 | < 0.02 | < 0.02 | 0.04   | 0.02   | 0.02   | 0.01   | 0.02   | 0.01   | 0.01   | 0.01   |
| CBOD5 (lbs/day)<br>Average Monthly                         | 0.10   | 0.30   | 0.80   | < 0.30 | 0.80   | 0.60   | < 0.50 | 0.30   | 0.30   | < 0.30 | < 2.23 | < 0.10 |
| CBOD5 (mg/L)<br>Average Monthly                            | 4      | 4      | 5      | 2      | 5      | 4      | < 4    | 3      | 3      | < 2    | < 13   | < 3    |
| TSS (lbs/day)<br>Average Monthly                           | 0.4    | 0.8    | < 0.7  | < 0.6  | 1.4    | < 0.7  | < 0.8  | < 0.5  | < 0.6  | 0.9    | < 0.8  | 0.7    |
| TSS (mg/L)<br>Average Monthly                              | 9      | 10     | < 4    | < 4    | 10     | < 5    | < 6    | < 4    | < 5    | 6      | < 5    | 18     |
| Fecal Coliform<br>(CFU/100 ml)<br>Geometric Mean           | < 26   | < 15   | < 1    | < 1    | < 1    | < 1    | < 6    | < 1    | < 1    | < 2    | < 1    | < 5    |
| Fecal Coliform<br>(CFU/100 ml)<br>Instantaneous<br>Maximum | 696    | 216    | 2      | < 1    | < 1    | < 1    | 41     | 2      | < 1    | 3      | < 1    | 23     |
| Nitrate-Nitrite (lbs/day)<br>Average Monthly               |        |        |        |        |        |        |        | 11     |        |        |        |        |
| Nitrate-Nitrite (mg/L)<br>Average Monthly                  |        |        |        |        |        |        |        | 75.87  |        |        |        |        |
| Total Nitrogen<br>(lbs/day)<br>Average Monthly             |        |        |        |        |        |        |        | 11     |        |        |        |        |

|  |         |         |       |     |     |     |      |       |     |       |        |         |
|--|---------|---------|-------|-----|-----|-----|------|-------|-----|-------|--------|---------|
| Total Nitrogen (mg/L)<br>Average Monthly         |         |         |       |     |     |     |      | 76.98 |     |       |        |         |
| Ammonia (lbs/day)<br>Average Monthly             | < 0.004 | < 0.008 | < 0.1 | 0.3 | 0.1 | 0.3 | 0.2  | 0.3   | 0.4 | 0.02  | < 0.02 | < 0.004 |
| Ammonia (mg/L)<br>Average Monthly                | < 0.1   | < 0.1   | < 0.8 | 2.5 | 1.1 | 2.0 | 1.2  | 2.4   | 3.2 | < 0.1 | < 0.1  | < 0.1   |
| TKN (lbs/day)<br>Average Monthly                 |         |         |       |     |     |     |      | 0.2   |     |       |        |         |
| TKN (mg/L)<br>Average Monthly                    |         |         |       |     |     |     |      | 1.11  |     |       |        |         |
| Total Phosphorus<br>(lbs/day)<br>Average Monthly | 0.1     | 0.1     | 0.2   | 0.2 | 0.2 | 0.1 | 0.08 | 0.07  | 0.1 | 0.1   | 0.3    | 0.06    |
| Total Phosphorus<br>(mg/L)<br>Average Monthly    | 1.5     | 1.5     | 1.4   | 1.9 | 1.5 | 0.8 | 0.6  | 0.5   | 1.3 | 0.9   | 1.8    | 1.3     |

**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> Measurement Frequency | Required Sample Type |
|                             | Average Monthly                     | Average Weekly   | Minimum               | Average Monthly | Maximum | Instant. Maximum |  |                      |
| Flow (GPD)                  | Report                              | Report Daily Max | XXX                   | XXX             | XXX     | XXX              | Continuous                                   | Recorded             |
| pH (S.U.)                   | XXX                                 | XXX              | 6<br>Inst Min         | XXX             | XXX     | 9                | See Permit                                   | Grab                 |
| DO                          | XXX                                 | XXX              | 5.0<br>Inst Min       | XXX             | XXX     | XXX              | See Permit                                   | Grab                 |
| TRC                         | XXX                                 | XXX              | XXX                   | 0.02            | XXX     | 0.04             | See Permit                                   | Grab                 |
| CBOD5                       | 6.25                                | XXX              | XXX                   | 25              | XXX     | 50               | 2/month                                      | 8-Hr Composite       |
| TSS                         | 7.5                                 | XXX              | XXX                   | 30              | XXX     | 60               | 2/month                                      | 8-Hr Composite       |
| Fecal Coliform (No./100 ml) | XXX                                 | XXX              | XXX                   | 200<br>Geo Mean | XXX     | 1000             | 2/month                                      | Grab                 |
| Nitrate-Nitrite             | Report Annl Avg                     | XXX              | XXX                   | Report Annl Avg | XXX     | XXX              | 1/year                                       | 8-Hr Composite       |
| Total Nitrogen              | Report Annl Avg                     | XXX              | XXX                   | Report Annl Avg | XXX     | XXX              | 1/year                                       | Calculation          |
| Ammonia<br>Nov 1 - Apr 30   | 1.5                                 | XXX              | XXX                   | 6.0             | XXX     | 12               | 2/month                                      | 8-Hr Composite       |
| Ammonia<br>May 1 - Oct 31   | 0.5                                 | XXX              | XXX                   | 2.0             | XXX     | 4                | 2/month                                      | 8-Hr Composite       |
| TKN                         | Report Annl Avg                     | XXX              | XXX                   | Report Annl Avg | XXX     | XXX              | 1/year                                       | 8-Hr Composite       |
| Total Phosphorus            | 0.5                                 | XXX              | XXX                   | 2.0             | XXX     | 4                | 2/month                                      | 8-Hr Composite       |

Compliance Sampling Location: Outfall 001