

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

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0238988
 APS ID 994225
 Authorization ID 1274950

Applicant and Facility Information

| | | | |
|---------------------------|-------------------------------------------------------------------------------|------------------|-----------------------------------------------------|
| Applicant Name | <u>David J. Tomczak</u> | Facility Name | <u>Greene Meadows STP</u> |
| Applicant Address | <u>9485 Old Waterford Road</u> <u>Erie, PA 16509-5659</u> | Facility Address | <u>2500 Deer Run Trail</u> <u>Erie, PA 16509</u> |
| Applicant Contact | <u>David Tomczak</u> | Facility Contact | <u></u> |
| Applicant Phone | <u>(814) 835-0020</u> | Facility Phone | <u></u> |
| Client ID | <u>204059</u> | Site ID | <u>557107</u> |
| Ch 94 Load Status | <u>Not Overloaded</u> | Municipality | <u>Greene Township</u> |
| Connection Status | <u>No Limitations</u> | County | <u>Erie</u> |
| Date Application Received | <u>May 23, 2019</u> | EPA Waived? | <u>Yes</u> |
| Date Application Accepted | <u>August 28, 2019</u> | If No, Reason | <u></u> |
| Purpose of Application | <u>Renewal of a NPDES Permit for an existing discharge of treated sewage.</u> | | |

Summary of Review

The certified operator for the facility, Pat Hodapp, requested that the daily D.O. and pH monitoring frequencies currently in the permit be reduced to 3/week or weekly in the renewed permit because a trend of analysis results would have to be studied over months of testing in order to make a determination based on the treatment set up at Greene Meadows Subdivision, and there are no adjustments that can be made to alter the effluent if any parameter is out of compliance. The 1/day sampling frequencies for pH and D.O. are in accordance with the Department's SOP "New and Reissuance Sewage Individual NPDES Permit Applications" for facilities with a design flow of 0.002 MGD or more. 1/day sampling frequency for D.O. and pH will remain in the proposed renewed permit.

There are currently no open violations listed in EFACTS for this permittee (6/23/2020).

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.

| Approve | Deny | Signatures | Date |
|---------|------|-----------------------------------------------------------------------------|---------------|
| X | | Adam Pesek Adam J. Pesek, E.I.T. / Environmental Engineering Specialist | June 23, 2020 |
| X | | Justin C. Dickey Justin C. Dickey, P.E. / Environmental Engineer Manager | July 6, 2020 |

| Discharge, Receiving Waters and Water Supply Information | | | |
|----------------------------------------------------------|------------------------------------------|------------------------------|---------------------------------|
| Outfall No. | <u>001</u> | Design Flow (MGD) | <u>0.01</u> |
| Latitude | <u>42° 2' 36"</u> | Longitude | <u>-79° 59' 30"</u> |
| Quad Name | <u>Hammett</u> | Quad Code | <u>0206</u> |
| Wastewater Description: <u>Sewage Effluent</u> | | | |
| Receiving Waters | <u>Unnamed Tributary of Walnut Creek</u> | Stream Code | <u>63774</u> |
| NHD Com ID | <u>123923514</u> | RMI | <u>0.86</u> |
| Drainage Area | <u>0.03 (dry); 0.81 (perennial)</u> | Yield (cfs/mi ²) | <u>0.043 (perennial)</u> |
| Q ₇₋₁₀ Flow (cfs) | <u>0 (dry); 0.0348 (perennial)</u> | Q ₇₋₁₀ Basis | <u>USGS Regression Analysis</u> |
| Elevation (ft) | <u>1390</u> | Slope (ft/ft) | <u></u> |
| Watershed No. | <u>15-A</u> | Chapter 93 Class. | <u>CWF, MF</u> |
| Existing Use | <u></u> | Existing Use Qualifier | <u></u> |
| Exceptions to Use | <u></u> | Exceptions to Criteria | <u></u> |
| Assessment Status | <u>Attaining Use(s)</u> | | |
| Cause(s) of Impairment | <u></u> | | |
| Source(s) of Impairment | <u></u> | | |
| TMDL Status | <u></u> | Name | <u></u> |
| Background/Ambient Data | | Data Source | |
| pH (SU) | <u>7.0</u> | Default | <u></u> |
| Temperature (°C) | <u>20</u> | Default (CWF) | <u></u> |
| Hardness (mg/L) | <u></u> | | <u></u> |
| Other: | <u></u> | | <u></u> |
| Nearest Downstream Public Water Supply Intake | <u>Lake Erie</u> | | |
| PWS Waters | <u>Lake Erie</u> | Flow at Intake (cfs) | <u></u> |
| PWS RMI | <u></u> | Distance from Outfall (mi) | <u>23</u> |

Changes Since Last Permit Issuance:

Other Comments:

| Treatment Facility Summary | | | | |
|----------------------------------------------------------------|-----------------------------------|---------------------------|----------------------------|-------------------------------|
| Treatment Facility Name: Greene Meadows Subdivision STP | | | | |
| WQM Permit No. | | Issuance Date | | |
| 253414 A-1 | | 1/30/2015 | | |
| 253414 A-2 | | 6/29/2017 | | |
| Waste Type | Degree of Treatment | Process Type | Disinfection | Avg Annual Flow (MGD) |
| Sewage | Secondary | Septic Tank / Sand Filter | Ultraviolet | 0.01 |
| Hydraulic Capacity (MGD) | | | | |
| 0.01 | Organic Capacity (lbs/day) | Load Status | Biosolids Treatment | Biosolids Use/Disposal |
| | 18.34 | Not Overloaded | | Other WWTP |

Changes Since Last Permit Issuance:

Other Comments:

Compliance History

DMR Data for Outfall 001 (from May 1, 2019 to April 30, 2020)

| Parameter | APR-20 | MAR-20 | FEB-20 | JAN-20 | DEC-19 | NOV-19 | OCT-19 | SEP-19 | AUG-19 | JUL-19 | JUN-19 | MAY-19 |
|------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Flow (MGD) Average Monthly | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 |
| Flow (MGD) Daily Maximum | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 |
| pH (S.U.) Minimum | 7.9 | 8.0 | 8.1 | 6.8 | 8.0 | 8.0 | 8.0 | 7.0 | 6.8 | 7.1 | 6.9 | 8.4 |
| pH (S.U.) Maximum | 8.4 | 8.3 | 8.3 | 7.1 | 8.6 | 8.2 | 8.3 | 7.3 | 7.0 | 7.1 | 7.1 | 9.1 |
| DO (mg/L) Minimum | 9.0 | 9.2 | 7.8 | 6.8 | 6.7 | 6.0 | 6.90 | 6.0 | 6.6 | 5.1 | 6.0 | 9.2 |
| CBOD5 (mg/L) Average Monthly | < 3.0 | 7.5 | < 3.0 | 7.83 | < 3.0 | < 3.0 | 3.96 | < 3.0 | < 3.0 | 7.5 | < 3.0 | 4.65 |
| TSS (mg/L) Average Monthly | 24.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 6.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Fecal Coliform (CFU/100 ml) Geometric Mean | 2.31 | 10 | 244 | 7.0 | < 1.0 | 1.0 | 3.0 | 5.24 | < 5.0 | < 3.0 | 1840 | 20 |
| Fecal Coliform (CFU/100 ml) Instantaneous Maximum | 240 | 10 | 50 | 7.0 | < 1.0 | 1.0 | 3.0 | 28 | < 5.0 | < 3.0 | 2420 | 52 |
| Total Nitrogen (mg/L) Average Quarterly | | 12.2 | | | 38.2 | | | 38.2 | | | 36 | |
| Ammonia (mg/L) Average Monthly | < 0.8 | < 0.8 | < 0.8 | 0.8 | < 0.8 | < 0.8 | < 0.8 | < 0.8 | < 0.8 | < 0.8 | 36.0 | < 0.08 |
| Total Phosphorus (mg/L) Average Monthly | 0.89 | 0.9 | 0.76 | 0.96 | 0.94 | 1.25 | 1.05 | 2.0 | 1.18 | 0.75 | 0.98 | 0.74 |

Development of Effluent Limitations

| | |
|---------------------------------------------------------------|-----------------------------------------|
| Outfall No. <u>001</u> | Design Flow (MGD) <u>0.01</u> |
| Latitude <u>42° 2' 36.00"</u> | Longitude <u>-79° 59' 30.00"</u> |
| Wastewater Description: <u>Treated Sewage Effluent</u> | |

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

| Pollutant | Limit (mg/l) | SBC | Federal Regulation | State Regulation |
|------------------------------|-----------------|-----------------|--------------------|------------------|
| CBOD ₅ | 25 | Average Monthly | 133.102(a)(4)(i) | 92a.47(a)(1) |
| | 40 | Average Weekly | 133.102(a)(4)(ii) | 92a.47(a)(2) |
| Total Suspended Solids | 30 | Average Monthly | 133.102(b)(1) | 92a.47(a)(1) |
| | 45 | Average Weekly | 133.102(b)(2) | 92a.47(a)(2) |
| pH | 6.0 – 9.0 S.U. | Min – Max | 133.102(c) | 95.2(1) |
| Fecal Coliform (5/1 – 9/30) | 200 / 100 ml | Geo Mean | - | 92a.47(a)(4) |
| Fecal Coliform (5/1 – 9/30) | 1,000 / 100 ml | IMAX | - | 92a.47(a)(4) |
| Fecal Coliform (10/1 – 4/30) | 2,000 / 100 ml | Geo Mean | - | 92a.47(a)(5) |
| Fecal Coliform (10/1 – 4/30) | 10,000 / 100 ml | IMAX | - | 92a.47(a)(5) |
| Total Residual Chlorine | 0.5 | Average Monthly | - | 92a.48(b)(2) |

Comments: Chlorine disinfection not utilized, therefore TRC limit will not be applied.

Water Quality-Based Limitations

The following limitations were determined through water quality modeling:

| Parameter | Limit (mg/l) | SBC | Model |
|--------------------------------|--------------|-----------------|---------|
| Ammonia Nitrogen (5/1 – 10/31) | 14 | Average Monthly | WQM 7.0 |
| Ammonia Nitrogen (5/1 – 10/31) | 28 | IMAX | WQM 7.0 |

Comments: These limits were calculated during the previous permit review.

Best Professional Judgment (BPJ) Limitations

Comments: A dissolved oxygen limit of greater than 4 mg/l and monitoring and reporting of total nitrogen and ammonia nitrogen (winter season) were included in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits." A Phosphorus limit of 1.0 mg/l as an average monthly is in place for discharges to Lake Erie or tributaries to Lake Erie (IJC Agreement).

The permittee will be required to check for "UV Functional" 1/day and report on the supplemental report entitled "Daily Effluent Monitoring Form (3800-FM-BCW0435)" in accordance with Part C.I.F. of the permit.

Anti-Backsliding

N/A

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) ⁽¹⁾ | | Concentrations (mg/L) | | | | Minimum ⁽²⁾ Measurement Frequency | Required Sample Type |
| | Average Monthly | Average Weekly | Minimum | Average Monthly | Maximum | Instant. Maximum | | |
| Flow (MGD) | Report | Report Daily Max | XXX | XXX | XXX | XXX | 1/week | Measured |
| pH (S.U.) | XXX | XXX | 6.0 Daily Min | XXX | 9.0 Daily Max | XXX | 1/day | Grab |
| DO | XXX | XXX | 4.0 Daily Min | XXX | XXX | XXX | 1/day | Grab |
| CBOD5 | XXX | XXX | XXX | 25.0 | XXX | 50 | 2/month | Grab |
| TSS | XXX | XXX | XXX | 30.0 | XXX | 60 | 2/month | Grab |
| Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30 | XXX | XXX | XXX | 2000 Geo Mean | XXX | 10000 | 2/month | Grab |
| Fecal Coliform (CFU/100 ml) May 1 - Sep 30 | XXX | XXX | XXX | 200 Geo Mean | XXX | 1000 | 2/month | Grab |
| Ammonia Nov 1 - Apr 30 | XXX | XXX | XXX | Report | XXX | XXX | 1/month | Grab |
| Ammonia May 1 - Oct 31 | XXX | XXX | XXX | 14.0 | XXX | 28 | 2/month | Grab |
| Total Phosphorus | XXX | XXX | XXX | 1.0 | XXX | 2.0 | 2/month | Grab |
| Total Nitrogen | XXX | XXX | XXX | Report Avg Qrtly | XXX | XXX | 1/quarter | Grab |

Compliance Sampling Location: Outfall 001 (after disinfection)