



Application Type

Renewal

Facility Type

Non-Municipal

Major / Minor

Minor

Application No.

PA0050750

APS ID

1109003

Authorization ID

1475967

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Applicant and Facility Information

| | | | |
|---------------------------|-------------------------------------|------------------|----------------------------------|
| Applicant Name | <u>Umh Properties Inc.</u> | Facility Name | <u>Oxford Village MHP</u> |
| Applicant Address | <u>150 Clay Street St Suite 450</u> | Facility Address | <u>2 Dolinger Drive</u> |
| | <u>Morgantown, WV 26501</u> | | <u>West Grove, PA 19390-9169</u> |
| Applicant Contact | <u>Jeffrey Yorick</u> | Facility Contact | <u>Kyle Plunkett</u> |
| Applicant Phone | <u>(732) 577-9997</u> | Facility Phone | <u>(610) 869-8707</u> |
| Client ID | <u>79530</u> | Site ID | <u>270430</u> |
| Ch 94 Load Status | <u>Existing Hydraulic Overload</u> | Municipality | <u>Penn Township</u> |
| Connection Status | | County | <u>Chester</u> |
| Date Application Received | <u>March 5, 2024</u> | EPA Waived? | <u>Yes</u> |
| Date Application Accepted | | If No, Reason | |
| Purpose of Application | <u>.</u> | | |

Summary of Review

The requested renewal is for the facility discharging 47,000 gallons per day (gpd) of treated sewage effluent from Oxford Village Mobile Home Park (MHP) sewage treatment plant to East Branch Elk Creek in watershed 7K, in the Chesapeake Bay Watershed.

The sewage treatment plant (STP) consists of a comminutor, 2 bar screens, 2 aeration tanks, 2 chlorinators, and chlorine contact tank, and 2 sludge holding tanks.

Existing average monthly effluent limits for CBOD₅, Total Suspended Solids (TSS), Ammonia, pH, Total Residual Chlorine (TRC), Fecal Coliform, and Dissolved Oxygen are continued in this permit renewal. There are no changes in the flow, stream designation, and influent quality, therefor the previous effluent limitations are carried over to this permit renewal. The following limits will remain in this permit renewal:

| Parameter | Limits | SBC |
|-------------------|-----------------|-----------------------|
| CBOD ₅ | 25 | Average Monthly |
| TSS | 30 | Average Monthly |
| Ammonia | 20 | Average Monthly |
| Fecal Coliform | 200 No//100ml | |
| TRC | 0.5 | Average Monthly |
| DO | 5.0 | Instantaneous Minimum |
| pH | 6 – 9 STD Units | |
| TN | Report | Daily Maximum |
| TP | Report | Daily Maximum |

| Approve | Deny | Signatures | Date |
|---------|------|---|------------------|
| X | | <i>Charley Yang</i> Charley Yang / Environmental Engineering Specialist | October 21, 2024 |
| X | | <i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager | 10/22/2024 |

Summary of Review

This facility is among the Phase 5, smaller discharges (design annual average daily flow on August 29, 2005, less than 0.2 mgd, and greater than 0.002 mgd) as described in the latest version of the Chesapeake Bay *Supplemental to Phase II Watershed Implementation Plan, Revised on June 27, 2013*. Per Chesapeake Bay WIP, "DEP will not issue permits to existing Phase 4 and 5 facilities containing Cap Loads unless it is done on a broad scale or unless the facilities are expanding". Therefor TN and TP effluent monitoring will continue in this permit renewal.

Once per month raw sewage influent monitoring for CBOD₅ and TSS was added to the previous permit renewal as a requirement for municipal and non-municipal sewage facilities of design flows greater than 2,000 gpd. Raw sewage influent monitoring for CBOD₅ and TSS will be carried over to this renewal to make sure the treatment plant is meeting 85% removal efficiency.

Act 14 Notifications:

Penn Township Supervisors - December 19, 2023
Chester County Commissioners - December 16, 2023

Draft permit will be mailed to permittee.

Propose Part C Conditions:

- I. Other Requirements
 - A. No Stormwater
 - B. Acquire Necessary Property Rights
 - C. Sludge Disposal Requirement
 - D. Abandon STP When Municipal Sewers Available
 - E. Total Residual Chlorine Requirement
 - F. Notification of Designation Operator
 - G. 2/Month Sampling

Sludge use and disposal description and location(s):

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. | 001 | Design Flow (MGD) | .047 |
| Latitude | 39° 49' 20.39" | Longitude | -75° 53' 49.04" |
| Quad Name | | Quad Code | |
| Wastewater Description: | Sewage Effluent | | |
| Receiving Waters | East Branch Big Elk Creek (HQ-TSF, MF) | Stream Code | 06739 |
| NHD Com ID | 112188678 | RMI | 4.5 |
| Drainage Area | 9.3 mi ² | Yield (cfs/mi ²) | 0.059 |
| Q ₇₋₁₀ Flow (cfs) | 0.549 | Q ₇₋₁₀ Basis | StreamStats |
| Elevation (ft) | 549.6 | Slope (ft/ft) | 2.7 |
| Watershed No. | 7-K | Chapter 93 Class. | HQ-TSF, MF |
| Existing Use | | Existing Use Qualifier | |
| Exceptions to Use | | Exceptions to Criteria | |
| Assessment Status | Impaired | | |
| Cause(s) of Impairment | ORGANIC ENRICHMENT, ORGANIC ENRICHMENT, ORGANIC ENRICHMENT GRAZING IN RIPARIAN OR SHORELINE ZONES, GRAZING IN RIPARIAN OR SHORELINE ZONES, GRAZING IN RIPARIAN OR SHORELINE ZONES | | |
| Source(s) of Impairment | | | |
| TMDL Status | Name | | |

Changes Since Last Permit Issuance: None

Other Comments:

| Treatment Facility Summary | | | | |
|--|-----------------------------------|-----------------------------|----------------------------|-------------------------------|
| Treatment Facility Name: Oxford Village MHP | | | | |
| WQM Permit No. | Issuance Date | | | |
| 1583406 | 10/03/1983 | | | |
| Waste Type | Degree of Treatment | Process Type | Disinfection | Avg Annual Flow (MGD) |
| Sewage | | | Hypochlorite | |
| Hydraulic Capacity (MGD) | Organic Capacity (lbs/day) | Load Status | Biosolids Treatment | Biosolids Use/Disposal |
| 0.047 | | Existing Hydraulic Overload | | |

Changes Since Last Permit Issuance: None

Other Comments:

Compliance History

DMR Data for Outfall 001 (from September 1, 2023 to August 31, 2024)

| Parameter | AUG-24 | JUL-24 | JUN-24 | MAY-24 | APR-24 | MAR-24 | FEB-24 | JAN-24 | DEC-23 | NOV-23 | OCT-23 | SEP-23 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Flow (MGD) Average Monthly | 0.0146 | 0.0138 | 0.0142 | 0.0132 | 0.0146 | 0.0141 | 0.016 | 0.0169 | 0.0174 | 0.0161 | 0.0213 | 0.0291 |
| Flow (MGD) Daily Maximum | 0.0199 | 0.0169 | 0.0209 | 0.0167 | 0.0246 | 0.0269 | 0.0449 | 0.0381 | 0.0375 | 0.0234 | 0.0331 | 0.0399 |
| pH (S.U.) Instantaneous Minimum | 7.0 | 7.24 | 7.11 | 7.1 | 6.8 | 6.8 | 7.12 | 8.24 | 7.31 | 7.28 | 7.4 | 8.3 |
| pH (S.U.) Instantaneous Maximum | 7.62 | 7.7 | 7.98 | 7.34 | 8.47 | 7.46 | 8.4 | 8.41 | 8.44 | 8.47 | 8.49 | 8.49 |
| DO (mg/L) Instantaneous Minimum | 6.0 | 6.0 | 5.15 | 8.46 | 8.06 | 8.4 | 8.76 | 8.94 | 9.0 | 7.76 | 8.14 | 9.0 |
| TRC (mg/L) Average Monthly | < 0.01 | < 0.01 | < 0.02 | < 0.02 | < 0.02 | < 0.02 | < 0.05 | < 0.02 | < 0.02 | < 0.03 | < 0.02 | < 0.02 |
| TRC (mg/L) Instantaneous Maximum | < 0.01 | < 0.01 | 0.04 | 0.04 | 0.06 | 0.09 | 0.25 | 0.04 | 0.04 | 0.2 | 0.08 | 0.04 |
| CBOD5 (mg/L) Average Monthly | 4.6 | 2.7 | 10.7 | 5 | 4.2 | 6.5 | 15.5 | 30.6 | 10.5 | 9.8 | < 2.1 | < 2.5 |
| BOD5 (mg/L) Raw Sewage Influent Average Monthly | 526 | 490 | 354 | 1133 | 425 | 459 | 437 | 582 | 571 | 632 | 538 | 476 |
| TSS (mg/L) Average Monthly | 7.4 | 7 | 14 | < 6.3 | 11.2 | 11 | < 88 | 122 | 8.2 | < 12.4 | 15.6 | 10.4 |
| TSS (mg/L) Raw Sewage Influent Average Monthly | 331.6 | 374 | 151 | 470 | 426 | 358 | 262 | 543 | 557 | 614 | 534 | 452 |
| Fecal Coliform (No./100 ml) Geometric Mean | < 17 | 191 | < 1 | < 1 | < 1 | < 1 | < 25 | < 11 | < 1 | < 1 | < 1 | 19 |

| | | | | | | | | | | | | |
|--|-------|--------|------|-------|------|------|-------|-------|-------|-------|-------|--------|
| Fecal Coliform (No./100 ml) Instantaneous Maximum | 4800 | 3500 | 1 | < 1 | 2 | < 1 | 13000 | 1500 | < 1 | 2 | 1 | 180 |
| Total Nitrogen (mg/L) Daily Maximum | | | 36.5 | | | 46.9 | | | 40.8 | | | 52.6 |
| Ammonia (mg/L) Average Monthly | < 0.1 | < 0.35 | 7.19 | < 7.6 | 1.13 | 3.5 | 0.46 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.81 |
| Total Phosphorus (mg/L) Daily Maximum | | | 6.71 | | | 5.31 | | | 7.74 | | | 6.20 |

Compliance History

Effluent Violations for Outfall 001, from: October 1, 2023 To: August 31, 2024

| Parameter | Date | SBC | DMR Value | Units | Limit Value | Units |
|----------------|----------|--------|-----------|------------|-------------|------------|
| CBOD5 | 01/31/24 | Avg Mo | 30.6 | mg/L | 25 | mg/L |
| TSS | 02/29/24 | Avg Mo | < 88 | mg/L | 30 | mg/L |
| TSS | 01/31/24 | Avg Mo | 122 | mg/L | 30 | mg/L |
| Fecal Coliform | 07/31/24 | IMAX | 3500 | No./100 ml | 1000 | No./100 ml |
| Fecal Coliform | 08/31/24 | IMAX | 4800 | No./100 ml | 1000 | No./100 ml |
| Fecal Coliform | 02/29/24 | IMAX | 13000 | No./100 ml | 10000 | No./100 ml |

Summary of Inspections: Violations due to failure to renewal on time. The site is in good condition.

Other Comments: [REDACTED]

Development of Effluent Limitations

Outfall No. 001
Latitude 39° 49' 20.42"
Wastewater Description: Sewage Effluent

Design Flow (MGD) .047
Longitude -75° 53' 48.92"

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: [REDACTED]

Water Quality-Based Limitations

A "Reasonable Potential Analysis" (Attachment [REDACTED]) determined the following parameters were candidates for limitations: [REDACTED]

The following limitations were determined through water quality modeling (output files attached):

| Parameter | Limit (mg/l) | SBC | Model |
|------------------|--------------|-----------------|-------|
| Ammonia-Nitrogen | 20 | Average Monthly | WQM |

Comments: WQM 7.0 was run to verify the limit. The current limit will continue as it is.

Best Professional Judgment (BPJ) Limitations

Comments: Previously added once per month raw sewage influent monitoring for CBOD5 and TSS will continue on this renewal as a requirement for municipal and non-municipal sewage facilities of design flows greater than 2,000 gpd. Chesapeake Bay monitoring requirement for Total Nitrogen and Total Phosphorus will continue in this permit renewal.

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" (386-0400-001), SOPs and/or BPJ.

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

| Parameter | WATER UNITS (IN/SEWAGE) | | CONCENTRATIONS (mg/L) | | | MINIMUM MEASUREMENT | REQUIRED SAMPLE | TYPE |
|---|-------------------------|------------------|-----------------------|------------------|------------------|---------------------|-----------------|-----------------|
| | Average Monthly | Average Weekly | Minimum | Average Monthly | Maximum | | | |
| Flow (MGD) | Report | Report Daily Max | XXX | XXX | XXX | XXX | Continuous | Metered |
| pH (S.U.) | XXX | XXX | 6.0 Inst Min | XXX | XXX | 9.0 | 1/day | Grab |
| DO | XXX | XXX | 5.0 Inst Min | XXX | XXX | XXX | 1/day | Grab |
| TRC | XXX | XXX | XXX | 0.5 | XXX | 1.2 | 1/day | Grab |
| CBOD5 | XXX | XXX | XXX | 25 | XXX | 50 | 2/month | 24-Hr Composite |
| BOD5 Raw Sewage Influent | XXX | XXX | XXX | Report | XXX | XXX | 2/month | 24-Hr Composite |
| TSS | XXX | XXX | XXX | 30 | XXX | 60 | 2/month | 24-Hr Composite |
| TSS Raw Sewage Influent | XXX | XXX | XXX | Report | XXX | XXX | 2/month | 24-Hr Composite |
| Fecal Coliform (No./100 ml) Oct 1 - Apr 30 | XXX | XXX | XXX | 2000 Geo Mean | XXX | 10000 | 2/month | Grab |
| Fecal Coliform (No./100 ml) May 1 - Sep 30 | XXX | XXX | XXX | 200 Geo Mean | XXX | 1000 | 2/month | Grab |
| Total Nitrogen | XXX | XXX | XXX | XXX | Report Daily Max | XXX | 1/quarter | 24-Hr Composite |
| Ammonia | XXX | XXX | XXX | 20 | XXX | 40 | 2/month | 24-Hr Composite |
| Total Phosphorus | XXX | XXX | XXX | XXX | Report Daily Max | XXX | 1/quarter | 24-Hr Composite |