

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

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application No. PA0050750
APS ID 1109003
Authorization ID 1475967

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> <u>Morgantown, WV 26501</u>	Facility Address	<u>2 Dolinger Drive</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		
Source(s) of Impairment	GRAZING IN RIPARIAN OR SHORELINE ZONES, GRAZING IN RIPARIAN OR SHORELINE ZONES		
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

NPDES Permit Fact Sheet
Oxford Village MHP

NPDES Permit No. PA0050750

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:

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:

Water Quality-Based Limitations

A “Reasonable Potential Analysis” (Attachment) determined the following parameters were candidates for limitations:

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	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum 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	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

Compliance Sampling Location 001