pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal / Transfer**	Application No.	**PA0086151**
Facility Type	**Non-Municipal**	APS ID	**1090320**
Major / Minor	**Minor**	Authorization ID	**1443075**

Applicant and Facility Information

Applicant Name	**Nebula Realty Trust**	Facility Name	**Harmony Estates MHP**
Applicant Address	123 Gilpin Drive	Facility Address	Route 74 and Coral Drive
	West Chester, PA 19382-7412		Carlisle, PA 17013
Applicant Contact	P.C.Sekhar Chadaga	Facility Contact	P.C.Sekhar Chadaga
Applicant Phone	(610) 292-9785	Facility Phone	(610) 292-9785
Client ID	377741	Site ID	250807
Ch 94 Load Status	Not Overloaded	Municipality	North Middleton Township
Connection Status	No Limitation	County	Cumberland
Date Application Received	June 7, 2023	EPA Waived?	Yes
Date Application Accepted	June 26, 2023	If No, Reason	
Purpose of Application	NPDES Renewal and Transfer		

Summary of Review

The facility's previous owner was Harmony Estates MHP. In conjunction with this current NPDES Permit renewal application, the ownership, and operation, of Water Quality Management Permit 2196401 are being transferred to Nebula Realty Trust.

On behalf of Nebula Realty Trust, ELA Group, Inc., has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of the NPDES permit. The permit was last reissued on December 19, 2018 and became effective on January 1, 2019. The permit expired on December 31, 2023, but the terms and conditions of the permit have been administratively extended since that time.

The purpose of this Fact Sheet is to present the basis of information used for establishing the proposed NPDES permit effluent limitations. The Fact Sheet includes the following information:

1. A description of the facility
2. Type and Quantity of Wastewater or Pollutants Evaluated in the Permit
3. Facility NPDES Compliance History
4. Receiving Waters and Water Supply Information Detail Summary
5. Development of Effluent Limitations and Monitoring Requirements
6. Proposed NPDES Parameter Details

The applicant disclosed the Act 14 requirement to Cumberland County Planning Commission, and North Middleton Township

Approve	Deny	Signatures	Date
X		Steven C. Roselle, P.E. / Environmental Engineer *Steven C. Roselle*	May 29, 2024
x		*Maria D. Bebenek* for Daniel W. Martin, P.E. / Environmental Engineer Manager	June 25, 2024
x		*Maria D. Bebenek* Maria D. Bebenek, P.E. / Program Manager	June 25, 2024

Summary of Review

and the notice was received by the parties on April 14, 2023, and April 13, 2023, respectively. A planning approval letter was not necessary as the facility is neither new or expanding.

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.

Any additional information or public review of documents associated with the discharge or facility may be available at PA DEP Southcentral Regional Office (SCRO), 909 Elmerton Avenue, Harrisburg, PA 17110. To make an appointment for file review, contact the SCRO File Review Coordinator at 717.705.4700.

1. Description of the Facility

1.1 Consultant

A consultant was used to assist in the preparation of the NPDES Permit renewal application: Thomas W. Devenney, P.E., ELA Group, Inc., 743 South Broad Street, Lititz, PA 17543. (717) 626-7271, twdevenney@elagroup.com .

Site Location

A topographical and an aerial photograph of the facility are depicted as Figure 1 and Figure 2.

Figure 1: Topographical map of the subject facility

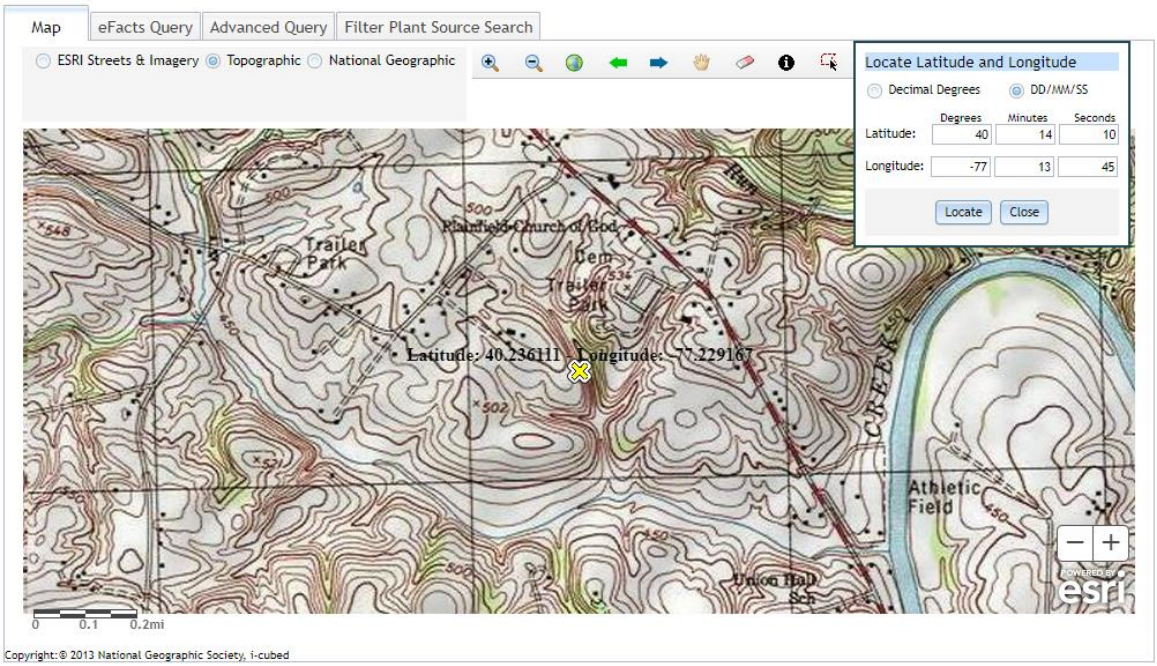
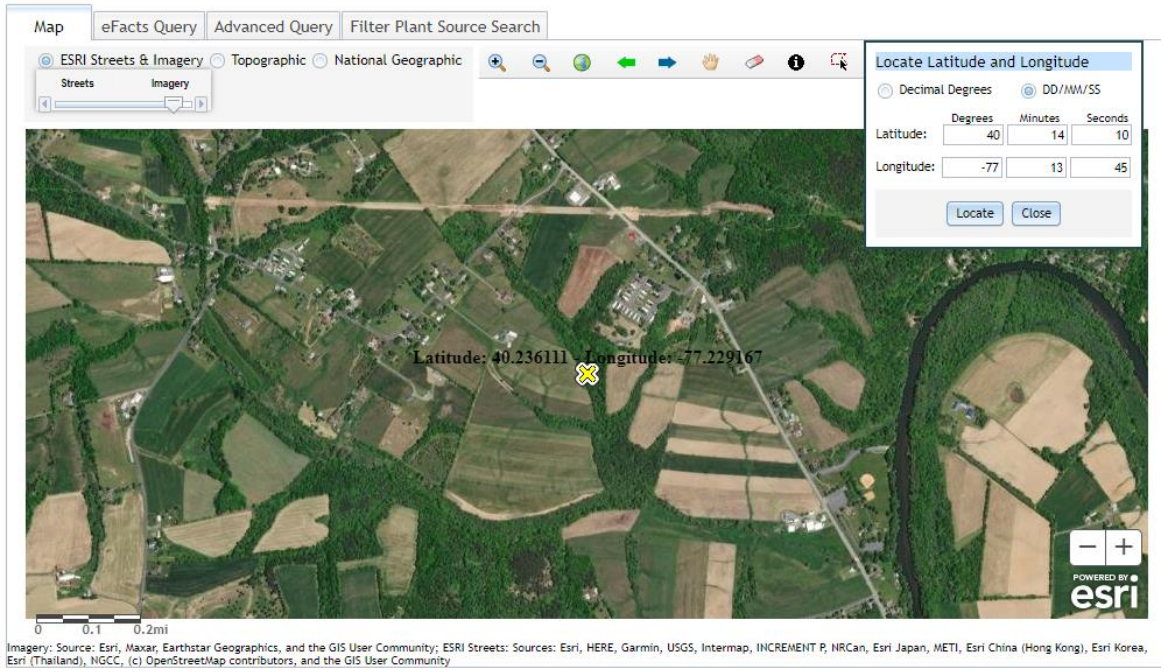


Figure 2: Aerial Photograph of the subject facility



1.2 Description of Exiting Wastewater Treatment Process

Nebula Realty Trust operates an on-site wastewater treatment facility. With having an annual average design flow of 0.016 MGD, the facility utilizes an extended aeration activated sludge treatment facility consisting of comminutor, bar screen, equalization tank, aeration tank, clarifier, UV disinfection, post aeration and outfall 001.

A sludge holding tank is available for sludge treatment. Sludge is then hauled off site via a local septage hauler to another WWTP for ultimate treatment/disposal.

Treatment Facility Summary

Treatment Facility Name: Nebula Realty Trust

WQM Permit No.	Issuance Date
2196401	July 26, 2015

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Ultraviolet Disinfection	0.016

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.016	Unknown	Not Overloaded	Aerated Digester	Other WWTP

2. Type and Quantity of Wastewater or Pollutants Evaluated in the Permit

2.1 Existing Permit Requirements

The facility has the following Effluent Limitations, Monitoring, Recordkeeping and Reporting Requirements:

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. A. For Outfall 001 , **Latitude** 40° 14' 10.00" , **Longitude** 77° 13' 45.00" , **River Mile Index** 0.53 , **Stream Code** 10290

Receiving Waters: Unnamed Tributary to Conodoguinet Creek

Type of Effluent: Sewage Effluent

1. The permittee is authorized to discharge during the period from **January 1, 2019** through **December 31, 2023**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) [1]		Concentrations (mg/L)				Minimum [2] Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Daily Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	9.0	XXX	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	25.0	XXX	50	2/month	24-Hr Composite
Total Suspended Solids	XXX	XXX	XXX	30.0	XXX	60	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
Ammonia-Nitrogen Nov 1 - Apr 30	XXX	XXX	XXX	7.5	XXX	15	2/month	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	XXX	2.5	XXX	5	2/month	24-Hr Composite
Total Phosphorus	XXX	Report Daily Max	XXX	1.0	XXX	2	2/month	24-Hr Composite
Kjeldahl--N	XXX	Report Daily Max	XXX	XXX	Report	XXX	1/year	24-Hr Composite

Outfall001 , Continued (from January 1, 2019 through December 31, 2023)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) [1]		Concentrations (mg/L)				Minimum [2] Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Daily Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Nitrate-Nitrite as N	XXX	Report Daily Max	XXX	XXX	Report	XXX	1/year	24-Hr Composite
Total Nitrogen	XXX	Report Daily Max	XXX	XXX	Report	XXX	1/year	Calculation

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 001

3. Facility NPDES Compliance History

3.1 Compliance History and Operating Data

A summary of Inspections and DMR data follows.

Compliance History	
Summary of DMRs:	A summary of 2023 DMR data is presented on the next page.
Summary of Inspections:	February 4, 2020. Michael Benham, DEP Water Quality Specialist, conducted a site inspection, and met with Mr. Justin Latourette (Certified Operator). Recommendations were made to apply for a WQM-Part II permit to modify/change the screening treatment, or repair comminutor and place back in service. Only a manual bar screen was in place. A recommendation was made to develop a procedure to ensure the composite sampler will collect all 96 samples, which would span an entire 24-hour period. No violations were identified during this inspection. See Note 2 under 'Other Comments". September 14, 2022. Brandon Bettinger, DEP Water Quality Specialist, conducted a site inspection, and met with Mr. Justin Latourette (Certified Operator). No violations were noted. A non-compliance was identified: The operator failed to implement a general work plan for the facility.
Other Comments:	1. DEP's database shows there are no open violations associated with this facility or permittee. 2. Thomas W. Devenney, P.E., confirmed in an email on 5/28/24 that the operator reports that 2 grinder pumps were installed to replace the grinder, and that the sampler now runs 24 hours.

3.2 Summary of Data

The data shown in the table below were included in the application, as reported by Suburban Testing Labs, 1037 F MacArthur Road, Reading, PA 19605, except for the average value of Fecal Coliform of <73.25. This data was provided on 5/28/24 by Thomas W. Devenney, P.E., as a follow up to an email from Steve Roselle of DEP dated 5/28/24, requesting clarification in regard to the data included with the application On the following page is a summary of DMR data from calendar year 2023. Based on the data available, the facility has consistently demonstrated the capability to meet the NPDES Permit limits, with minimal instances of non-compliances.

Effluent Testing Information Submitted with Application (Except as Noted Above)

Parameter and Units	Permit Limit	Number of Samples	Sample Type	Min./Max Value	Average Value
pH (S.U.) Minimum	6.0	730	Grab	6.04	
pH (S.U.) Maximum	9.0	730	Grab	8.91	
CBOD5 (mg/L)	25.0 Avg. Mo. 50 Inst. Max.	48	24-hr. comp	13.0 max.	<2.625
TSS (mg/L)	30.0 Avg. Mo. 60 Inst. Max.	48	24-hr. comp	24.0 max.	<10.375
Fecal Coliform (CFU/100 ml)	See paragraph 2.1	730	Grab	20,000 (IMAX)	<73.25
Ammonia (mg/L)	See paragraph 2.1	48	24-hr. comp	< 0.5 max.	< 0.1375
Total Phosphorus (mg/L)	1.0 Avg. Mo. 2 Inst. Max.	48	24-hr. comp	0.9 max.	0.5625
Total Nitrogen (mg/L)	Report	2	Calculation	<52.4 max.	46.15

DMR Data for Outfall 001 (from January 1, 2023 thru December 31, 2023)

Parameter	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23
Flow (MGD) Average Monthly	0.0044	0.0027	0.0030	0.0027	0.0030	0.0024	0.0027	0.0027	0.0031	0.0030	0.0027	0.0034
Flow (MGD) Daily Maximum	0.0076	0.0047	0.0087	0.0040	0.0136	0.0036	0.0042	0.0050	0.0158	0.0058	0.0048	0.0089
pH (S.U.) Minimum	6.65	7.03	7.04	6.31	7.05	6.39	6.22	6.47	6.07	7.04	6.42	7.02
pH (S.U.) Maximum	8.14	7.84	8.72	7.92	8.24	8.45	8.3	8.68	8.08	8.18	8.27	7.97
DO (mg/L) Minimum	5.86	5.91	7.22	6.70	6.41	6.17	5.44	5.45	5.17	5.87	5.91	6.72
CBOD5 (mg/L) Average Monthly	4.0	4.0	8.0	3.0	2.0	3.0	< 2.0	< 2.0	< 2.0	< 2.0	3.0	3.0
TSS (mg/L) Average Monthly	9.0	11.0	6.0	8.0	5.0	10.0	17.0	11.0	9.0	12.0	9.0	12.0
Fecal Coliform (CFU/100 ml) Geometric Mean	2	5	< 1	< 2	6.0	65	171	18	39	23	15	< 3
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	4	8	< 1	5	16	108	**2100**	44	48	76	32	9
Ammonia (mg/L) Average Monthly	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Total Phosphorus (mg/L) Average Monthly	0.6	0.7	0.5	0.8	0.7	**1.2**	0.6	0.4	0.3	0.5	0.3	0.4

Values in red are permit limit non—compliances.

4. Receiving Waters and Water Supply Information Detail Summary

4.1 Receiving Waters and Drainage Area

The discharge is to Unnamed Tributary 10290 to Conodoguinet Creek at RMI 0.53 mi. The sequence of receiving streams are the Conodoguinet Creek and to the Susquehanna River, which eventually drains into the Chesapeake Bay. It is noteworthy that DEP's eMapPa does not recognize the receiving watercourse as a stream and this watercourse is a tributary of Unnamed Tributary 10290 to Conodoguinet Creek. As a result, DEP will assume the receiving watercourse as a stream segment of Unnamed Tributary 10290 to Conodoguinet Creek. According to the fact sheet prepared during the last permit renewal, a Point of First Use stream survey conducted on November 2, 1989 concluded that a point of the first use is at the point of discharge. A drainage area upstream of the point of discharge is estimated to be 0.15 sq.mi. according to USGS StreamStats available at https://streamstats.usgs.gov/ss/ .

4.2 Public Water Supply (PWS) Intake

The fact sheet prepared for the last permit renewal indicates that the nearest downstream public water supply intake is Carlisle Borough located on the Conodoguinet Creek, approximately 3.3 miles from the point of discharge. The discharge is to an unnamed tributary of another unnamed tributary of Conodoguinet Creek and Conodoguinet Creek flow at the intake is about 48 cfs and the discharge is rated for 0.016 MGD (0.0297 cfs). Given the dilution available, the discharge is not expected to significantly impact the water supply.

4.3 Class A Wild Trout Streams and TMDL Considerations.

Under Pa Code §93.9o, all unnamed tributaries of Conodoguinet Creek from PA 997 at Roxbury to Mouth of the Conodoguinet Creek are designated as warm water and migratory fishes. No special protection water(s) is therefore impacted by this discharge. No Class A Wild Trout Fishery is also impacted by this discharge. DEP's integrated water quality report indicates that Unnamed Tributary 10290 to Conodoguinet Creek is impaired for siltation as a result of agricultural and construction activities. The report also pointed out that the stream is impaired for flow alterations from habitat modification. A Total Maximum Daily Load (TMDL) was developed in December 2000 for the Conodoguinet Creek watershed; however, this TMDL does not address impairments identified for Unnamed Tributary 10290 to Conodoguinet Creek. No TMDL has been therefore taken into consideration during this review.

4.4 Low Flow Stream Conditions.

Water quality modeling estimates are based upon conservative data inputs. The data are typically estimated using either a stream gauge or through USGS web based StreamStats program. The NPDES effluent limits are based upon the combined flows from both the stream and the facility discharge. USGS StreamStats did not produce a Q7-10 flow at the point of discharge. As a result, flow data collected from USGS gage station no. 0157000 on the Conodoguinet Creek near Hogestown, Pa is used to calculate the Q7-10 as follows:

$$\text{Low Flow Yield} = Q7\text{-}10_{gage} / \text{Drainage Area}_{gage} = 69.3 \text{ cfs} / 470 \text{ sq.mi.} = 0.147 \text{ cfs/sq.mi.}$$
$$Q7\text{-}10_{site} = \text{Low Flow Yield} * \text{Drainage Area}_{site} = 0.147 \text{ cfs/sq.mi.} * 0.15 \text{ sq.mi.} = 0.022 \text{ cfs.}$$
$$\text{Q1-10/Q7-10 Ratio} = 63.1 \text{ cfs} / 69.3 \text{ cfs} = 0.91 : 1$$
$$\text{Q30-10/Q7-10 Ratio} = 78.3 \text{ cfs} / 69.3 \text{ cfs} = 1.13 : 1$$

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.016
Latitude	40º 14' 10"	Longitude	-77º 13' 45"
Quad Name	Carlisle	Quad Code	1728
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Conodoguinet Creek	Stream Code	10290
NHD Com ID	56405903	RMI	0.53
Drainage Area	0.15 sq.mi.	Yield (cfs/mi^2)	0.147
$Q_{7\text{-}10}$ Flow (cfs)	0.022	$Q_{7\text{-}10}$ Basis	USGS StreamStats
Elevation (ft)		Slope (ft/ft)	
Watershed No.	7-B	Chapter 93 Class.	WWF, MF
Existing Use	None	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	Flow Alterations, Siltation, Siltation		
Source(s) of Impairment	Agriculture, Construction, Habitat Modification		
TMDL Status	Final	Name	Conodoguinet Creek Watershed
Nearest Downstream Public Water Supply Intake	Carlisle Borough		
PWS Waters	Conodoguinet Creek	Flow at Intake (cfs)	48
PWS RMI	35.95	Distance from Outfall (mi)	3.3

Discharge, Receiving Waters and Water Supply Information

5. Development of Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements 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.

5.1 Technology Based Limits

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: This facility utilizes UV disinfection system; accordingly, TRC effluent standard is not applicable.

5.2 Water Quality-Based Limitations

CBOD5, NH3-N and Dissolved Oxygen (DO)

WQM 7.0 version 1.0b is a water quality model designed to assist DEP to determine appropriate permit requirements for CBOD5, NH3-N and DO. DEP's guidance no. 391-2000-007 provides the technical methods contained in WQM 7.0 for conducting wasteload allocation and for determining recommended NPDES effluent limits for point source discharges. The model was utilized and the model output indicated that existing effluent limits are still appropriate. No change is therefore recommended.

Toxics

DEP's NPDES permit application for minor sewages less than 0.1 MGD does not require sampling of toxics pollutants. As a result, no reasonable potential analysis for toxics pollutants has been performed for the upcoming permit renewal.

5.3 Best Professional Judgment (BPJ) Limitations

Dissolved Oxygen

A minimum of 5.0 mg/L for DO is an existing effluent limit and will remain unchanged in the draft permit as recommended by DEP's SOP. This requirement has also been assigned to other sewage facilities in the region. 5.0 mg/L is taken directly from 25 Pa. Code § 93.7(a) and it is also determined to be appropriate according to water quality modeling.

Total Phosphorus

The existing permit renewal contains average monthly concentration effluent limit of 1.0 mg/L and IMAX of 2.0 mg/L for Total Phosphorus. The fact sheet prepared for the last permit renewal contained the following basis for these effluent limits:

"Phosphorus limits were required to protect Conodoguinet Creek with new dischargers limited to 1 mg/L. When the limits were developed, protection was required only during the growing season from April 1 to October 31. Since then, DEP biologists determined that limits were needed the entire year to prevent excessive plant and algal growth in Conodoguinet Creek"

DEP finds no reasonable rationale to relax or remove these effluent limits; consequently, existing effluent limits for Total Phosphorus will remain unchanged in the draft permit in accordance with 40 CFR 122.44(l)(1) and (2).

5.4 Additional Considerations

Flow Monitoring

The requirement to monitor the volume of effluent will remain in the draft permit per 40 CFR §122.44(i)(1)(ii).

UV Monitoring Requirement

DEP's SOP no. BPNPSM-PMT-033 recommends a routine monitoring of UV output in case the UV system is used in lieu of chlorine for disinfection. The June 28, 2018 Fact Sheet included with the previous renewal cycle indicated that the operator reported that the UV System was not operating properly, and the monitoring system may not have been functioning accurately at that time. Subsequently, a new UV System was placed into service on Feb. 4, 2019, which can accomplish the monitoring requirement of UV output.

Chesapeake Bay TMDL

DEP's Phase II Watershed Implementation Plan (WIP) categorizes this facility as a phase 5 non-significant sewage facility that has a design flow less than 0.2 MGD but greater than 0.002 MGD. The WIP recommends monitoring and reporting for Total Nitrogen and Total Phosphorus throughout the permit term at a frequency no less than annually. For 2017, the facility reported the annual average data of nutrients as follows: Total Nitrogen 10.17 mg/L 0.08 lbs/day, Total Kjeldahl Nitrogen 0.82 mg/L 0.006 lbs/day, Nitrate-Nitrite as N 9.35 mg/L, 0.07 lbs/day and Total Phosphorus 0.41 mg/L, 0.005 lbs/day.

As part of DEP's Chesapeake Bay TMDL implementation strategy, DEP requires actual long-term datasets to accurately evaluate the water quality impacts of the streams as a result of nutrients discharges from point sources. Consequently, the existing monitoring of Total Nitrogen and Total Phosphorus will still be maintained in the permit. The requirement to monitor for these parameters is also recommended by DEP's SOP no. BPNPSM-PMT-033. Because the receiving stream is not impaired for nutrients and the recent data provides that the discharge levels are below the typical level observed from other facilities (i.e., WIP pointed out that 25 mg/L TN and 4 mg/L TP are the average estimated concentrations of all non-significant sewage facilities), annual monitoring will be sufficient for Total Nitrogen and its species. For Total Phosphorus, since the facility is already required to comply with effluent limits based on 2/month sampling requirements, no change is necessary.

Monitoring Frequency and Sample Type

Unless otherwise specified throughout this fact sheet, existing monitoring frequencies and sample types will remain unchanged in the permit.

Mass Loading Limitations

All effluent mass loading limits will be based on the formula: design flow x concentration limit x conversion factor of 8.34.

Antidegradation Requirements

All effluent limitations and monitoring requirements have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected.

6. Proposed NPDES Parameter Details

The proposed effluent limitations and monitoring requirements listed below for the draft permit, are unchanged from the current permit limits with the exception that E. Coli shall be monitored monthly. Chapter 92a.61 provides provisions to DEP to monitor for pollutants that may have an impact on the quality of waters of the Commonwealth. Based upon DEP policy directives issued on March 22, 2021 and in conjunction with EPA's 2017 Triennial Review, monitoring for E. Coli shall be required.

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	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	9.0	XXX	1/day	Grab
DO	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/month	24-Hr Composite
TSS	XXX	XXX	XXX	30	XXX	60	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
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/month	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	7.5	XXX	15	2/month	24-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	2.5	XXX	5.0	2/month	24-Hr Composite
Total Phosphorus	XXX	Report Daily Max	XXX	1.0	XXX	2.0	2/month	24-Hr Composite
Nitrate-Nitrite	XXX	Report Daily Max	XXX	XXX	Report Daily Max	XXX	1/year	24-Hr Composite
Total Nitrogen	XXX	Report Daily Max	XXX	XXX	Report Daily Max	XXX	1/year	Calculation
TKN	XXX	Report Daily Max	XXX	XXX	Report Daily Max	XXX	1/year	24-Hr Composite

Tools and References Used to Develop Permit	
☒	WQM for Windows Model (An analysis was performed in conjunction with the previous renewal, and remains valid)
☐	PENTOXSD for Windows Model (see Attachment N/A)
☐	TRC Model Spreadsheet (see Attachment N/A)
☐	Temperature Model Spreadsheet (see Attachment N/A)
☐	Toxics Screening Analysis Spreadsheet (see Attachment N/A)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
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