pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0205931**
Facility Type	**Municipal**	APS ID	**860693**
Major / Minor	**Minor**	Authorization ID	**1346048**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Menallen Township Sewer Authority**	Facility Name	**Upper Middletown STP**
Applicant Address	427 Searights Herbert Road	Facility Address	566 Industrial Park Road
	Uniontown, PA 15401-5137		Smock, PA 15490
Applicant Contact	Randy Brown	Facility Contact	Randy Brown
Applicant Phone	(724) 245-7108	Facility Phone	(724) 245-7108
Client ID	43759	Site ID	237810
Ch 94 Load Status	Not Overloaded	Municipality	Menallen Township
Connection Status	No Limitations	County	Fayette
Date Application Received	March 5, 2021	EPA Waived?	Yes
Date Application Accepted	March 16, 2021	If No, Reason	

Purpose of Application: Renewal of an NPDES Permit for an existing discharge of treated domestic sewage from a POTW.

Summary of Review

The Upper Middletown STP receives and treats domestic sewage from Menallen Township.

No changes in plant operation or service area have been noted since the last permit renewal.

There is one open violation in WMS associated with the subject Client ID (43759) as of September 10, 2021. A summary is included as an attachment to this Fact Sheet. JCD

Sludge use and disposal description and location(s): Sludge is removed as needed and transported to Brownsville STP (PA022306) for processing.

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 Engineer	September 10, 2021
X		Justin C. Dickey Justin C. Dickey, P.E. / Environmental Engineer Manager	September 10, 2021

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.150
Latitude	39º 58' 0.00"	Longitude	-79º 44' 45.00"
Quad Name	Uniontown	Quad Code	1908
Wastewater Description:	Treated Domestic Sewage		

Receiving Waters	Redstone Creek	Stream Code	39931
NHD Com ID	99412688	RMI	13.65
Drainage Area	69.5	Yield (cfs/mi^2)	0.0232
Q_{7-10} Flow (cfs)	2.6252*	Q_{7-10} Basis	USGS Streamstats
Elevation (ft)	896.8	Slope (ft/ft)	0.00133
Watershed No.	19-C	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	METALS		
Source(s) of Impairment	ACID MINE DRAINAGE		
TMDL Status	Final, 04/09/2009	Name	Redstone Creek Watershed

Background/Ambient Data		Data Source
pH (SU)	7.0	Default
Temperature (°C)	25	Default for WWF
Hardness (mg/L)		
Other: NH_3-N	0	Previous Modeling

Nearest Downstream Public Water Supply Intake		California Water Company	
PWS Waters	Monongahela River	Flow at Intake (cfs)	550
PWS RMI	52.7	Distance from Outfall (mi)	

Changes Since Last Permit Issuance:

Other Comments: Q7-10 at the discharge point is summation of the Q&-10 flow at the Uniontown discharge and the accumulated streamflow between the two discharges as follows:

1.6 cfs/69.5 mi2 = 0.02302 cfsm
QT (cfs)= 0.02302 *x* (69.5 - 38 mi2) = 0.7252 cfs

Q7-10= 1.9+0.72 = **2.6252 cfs**

Treatment Facility Summary

Treatment Facility Name: Upper Middletown STP

WQM Permit No.	Issuance Date
2670407 A-2	11/09/2012

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Ultraviolet Disinfection	0.150

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.150	275.2	Not Overloaded	Dewatering	Combination of methods

Changes Since Last Permit Issuance:

Other Comments: The design organic capacity of 40 lb/day listed in WQM Permit No. 2670407 A-2, issued by DEP on November 9, 2012, is not realistic as this computes to a per person concentration of 32 mg/l. For comparison purposes, the Department expects influent BOD5 concentrations to typically approach 220 mg/l for medium strength domestic sewage.

The organic capacity of 275.2 lbs/day, as listed in the NPDES application, appears to be an appropriate value and will be used in Part A , Supplemental Information (3) page 4 of the permit. The permit therefore requires an organic capacity of 275.2 /b BOD_5 per day be used to prepare the Annual Municipal Wasteload Management Report to determine whether an “organic overload” condition exists.

Compliance History	
Summary of DMRs:	One effluent violation was reported in the last 5 years. The effluent violation was a fecal coliform IMAX excursion in 2019 summer period.
Summary of Inspections:	Visual inspection of the plant was conducted on 7/29/2021. Inspection report indicated that the plant appeared excellent and being well maintained.

Other Comments:

Compliance History

DMR Data for Outfall 001 (from June 1, 2020 to May 31, 2021)

Parameter	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20
Flow (MGD) Average Monthly	0.134	0.111	0.161	0.138	0.135	0.148	0.091	0.075	0.083	0.075	0.071	0.065
Flow (MGD) Daily Maximum	0.405	0.202	0.411	0.269	0.341	0.280	0.204	0.210	0.245	0.238	0.150	0.075
pH (S.U.) Minimum	6.7	6.7	6.6	7.2	7.2	7.2	7.0	6.8	6.6	6.4	6.5	6.7
pH (S.U.) Maximum	7.4	7.0	7.1	7.4	7.4	7.5	7.5	7.5	7.3	6.9	7.3	7.1
DO (mg/L) Minimum	7.0	7.1	7.6	6.1	7.0	7.0	6.9	6.3	6.0	5.5	6.1	6.6
CBOD5 (lbs/day) Average Monthly	5.6	2.5	2.5	2.2	2.7	3.3	1.8	2.9	1.2	1.2	1.5	1.8
CBOD5 (lbs/day) Weekly Average	16.9	4.6	3.5	3.2	3.6	5.0	2.9	8.8	1.2	1.3	2.1	2.7
CBOD5 (mg/L) Average Monthly	2.8	3.2	2.2	2.0	2.8	2.8	2.3	4.9	< 2	2	3	3
CBOD5 (mg/L) Weekly Average	5.0	7.6	2.3	2.0	4.4	4.4	3.3	14.9	2.0	2.5	4.5	4.3
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	65	62	30	115	43	23	43	46	42	38	39	31
BOD5 (lbs/day) Raw Sewage Influent Daily Maximum	79	86	35	148	109	38	63	90	51	59	61	45
BOD5 (mg/L) Raw Sewage Influent Average Monthly	59	81	27	112	39	24	60	79	74	74	66	54
TSS (lbs/day) Average Monthly	8.4	4.1	5.7	6.0	5.2	7.0	4.1	3.7	2.8	5.3	2.9	2.9
TSS (lbs/day) Raw Sewage Influent Average Monthly	67	40	56	38	52	43	140	65	47	57	43	40

TSS (lbs/day) Raw Sewage Influent Daily Maximum	169	56	83	60	105	66	354	160	76	92	72	60
TSS (lbs/day) Weekly Average	20.3	5.8	7.5	8.5	7.4	11.7	7.3	7.1	3.0	13.1	4.5	3.4
TSS (mg/L) Average Monthly	5.3	5.2	< 5.0	5.0	< 5	5.6	< 5.0	6	< 5	10	< 5	< 5
TSS (mg/L) Raw Sewage Influent Average Monthly	42	51	52	44	46	43	141	110	84	110	75	69
TSS (mg/L) Weekly Average	6.0	6.0	5.0	5.0	5	8.0	5	12	5	25	5	5
Fecal Coliform (CFU/100 ml) Geometric Mean	15	3	10	10	7	18	29	8	21	27	19	6
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	336	21	28	50	112	124	94	14	38	39	28	12
UV Transmittance (%) Minimum	63.4	61.9	62.4	66.9	72.0	68.2	60.4	61.5	63.1	65.2	66.2	58.1
UV Transmittance (%) Average Monthly	70.9	68.7	70.4	72.8	75.9	73.9	72.2	68.9	73.9	70.7	72.7	73.1
Total Nitrogen (mg/L) Daily Maximum						12.8						
Ammonia (lbs/day) Average Monthly	0.8	2.4	6.8	7.1	7.5	6.5	0.3	0.3	0.1	1.4	3.6	3.9
Ammonia (lbs/day) Weekly Average	2.7	7.0	8.1	8.5	10.0	7.6	0.4	1.1	0.1	2.7	7.4	4.8
Ammonia (mg/L) Average Monthly	0.4	2.1	6.1	6.9	7.0	5.7	0.3	0.5	0.2	2.7	5.4	6.8
Ammonia (mg/L) Weekly Average	0.8	4.8	8.1	11.0	9.0	8.5	0.6	1.8	0.2	5.2	8.2	9.6
Total Phosphorus (mg/L) Daily Maximum						3.4						
Total Aluminum (mg/L) Daily Maximum						0.1						
Total Iron (mg/L) Daily Maximum						0.2						
Total Manganese (mg/L) Daily Maximum						0.01						

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.150
Latitude 39º 58' 0.00" **Longitude** -79º 44' 45.00"
Wastewater Description: Treated domestic sewage

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: The facility utilizes UV disinfection. Therefore, technology-based TRC limits are not applicable.

Water Quality-Based Limitations

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

Parameter	Limit (mg/l)	SBC	Model
N/A			

Comments: No WQBELs were determined as a result of water quality modeling.

Best Professional Judgment (BPJ) Limitations

Comments: A dissolved oxygen limit of a minimum of 4.0 mg/l will be placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Other Considerations

Monitoring for influent BOD_5 and influent TSS will be placed in the permit in accordance with the Department's SOP entitled "New and Reissuance Sewage Individual NPDES Permit Applications."

Monitoring for ammonia nitrogen, total nitrogen, total phosphorus, E. Coli, and UV transmittance will be placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Monitoring requirements are being imposed on Iron, Manganese, and Aluminum due to the discharge to a stream with a TMDL for acid mine drainage.

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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Recorded
pH (S.U.)	XXX	XXX	6.0	XXX	9.0 Max	XXX	1/day	Grab
DO	XXX	XXX	4.0	XXX	XXX	XXX	1/day	Grab
CBOD5	31.3	46.9	XXX	25	37.5	50	1/week	8-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
TSS	37.6	56.3	XXX	30	45	60	1/week	8-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/week	Grab
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
UV Transmittance (%)	XXX	XXX	Report	Report	XXX	XXX	1/day	Recorded
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	8-Hr Composite
Ammonia	Report	XXX	XXX	Report	XXX	XXX	1/week	8-Hr Composite

Outfall 001, Continued (from 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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	8-Hr Composite
Total Aluminum	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	8-Hr Composite
Total Iron	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	8-Hr Composite
Total Manganese	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	8-Hr Composite

Compliance Sampling Location: Outfall 001 (after disinfection)

Other Comments:

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19C	39931	REDSTONE CREEK	**19.240**	944.75	38.00	0.00162	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.050	0.00	0.00	0.000	0.000	16.4	0.00	0.59	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Uniontown STP	PA0027219	9.4000	0.0000	0.0000	0.000	20.00	6.90

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	4.00	7.12	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19C	39931	REDSTONE CREEK	**13.650**	896.00	69.50	0.00133	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.023	0.00	0.00	0.000	0.000	27.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Upper Middleton	PA0205931	0.1500	0.0000	0.0000	0.000	20.00	6.80

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	4.00	7.12	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19C	39931	REDSTONE CREEK	**10.680**	883.00	73.70	0.00140	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.023	0.00	0.00	0.000	0.000	27.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
19C	39931	REDSTONE CREEK

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
19.240	1.90	0.00	1.90	14.5418	0.00162	.59	67.6	114.57	0.41	0.829	20.58	6.91
13.650	2.62	0.00	2.62	14.7738	0.00133	1.326	35.8	27	0.37	0.495	20.75	6.91
Q1-10 Flow												
19.240	1.22	0.00	1.22	14.5418	0.00162	NA	NA	NA	0.40	0.849	20.39	6.91
13.650	1.68	0.00	1.68	14.7738	0.00133	NA	NA	NA	0.36	0.511	20.51	6.91
Q30-10 Flow												
19.240	2.58	0.00	2.58	14.5418	0.00162	NA	NA	NA	0.42	0.810	20.75	6.91
13.650	3.57	0.00	3.57	14.7738	0.00133	NA	NA	NA	0.38	0.481	20.97	6.92

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	Uniform Treatme	Use Inputted W/D Ratio	☑
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	85.00%	Use Balanced Technology	☑
D.O. Goal	5		

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
19C	39931	REDSTONE CREEK

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
19.240	Uniontown STP	NA	50	17.52	18.98	1	62
13.650	Upper Middleton	NA	50	17.33	50	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
19.240	Uniontown STP	NA	25	1.85	2.18	1	91
13.650	Upper Middleton	NA	25	1.83	25	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
19.24	Uniontown STP	25	13.3	2.18	2.18	4	5	1	37
13.65	Upper Middleton	25	25	25	25	4	4	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
19C	39931	REDSTONE CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
19.240	9.400	20.578	6.910
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
67.597	0.590	114.571	0.412
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
11.99	0.776	1.93	0.732
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
5.245	4.620	Tsivoglou	5
Reach Travel Time (days)			
0.829			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.083	11.23	1.82	5.08
0.166	10.51	1.71	5.05
0.249	9.84	1.61	5.11
0.331	9.21	1.51	5.22
0.414	8.62	1.43	5.38
0.497	8.07	1.34	5.54
0.580	7.55	1.26	5.72
0.663	7.07	1.19	5.90
0.746	6.62	1.12	6.08
0.829	6.20	1.05	6.25

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
13.650	9.550	20.754	6.912
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
35.799	1.326	27.000	0.367
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
6.27	0.782	1.33	0.742
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
6.259	3.387	Tsivoglou	5
Reach Travel Time (days)			
0.495			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.050	6.03	1.28	6.15
0.099	5.79	1.23	6.07
0.149	5.56	1.19	6.03
0.198	5.34	1.15	6.01
0.248	5.13	1.11	6.01
0.297	4.93	1.07	6.03
0.347	4.74	1.03	6.07
0.396	4.55	0.99	6.11
0.446	4.37	0.95	6.17
0.495	4.20	0.92	6.23

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
19C	39931	REDSTONE CREEK

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
19.240	Uniontown STP	PA0027219	9.400	CBOD5	13.3		
				NH3-N	2.18	4.36	
				Dissolved Oxygen			5

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
13.650	Upper Middleton	PA0205931	0.150	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER MANAGEMENT SYSTEM
OPEN VIOLATIONS BY CLIENT

9/10/2021 7:05:31 AM

Client ID: 43759
Client: All

CLIENT ID	CLIENT	PF ID	FACILITY	PF KIND	PF STATUS
43759	MENALLEN TWP FAYETTE CNTY	238984	BUFFINGTON STP	Sewage Publicly Owned (Muni)	Active

INSP PROGRAM	PROGRAM SPECIFIC ID	INSP ID	VIOLATION ID	INSPECTION CATEGORY	VIOLATION DATE	VIOLATION CODE
WPC NPDES	PA0093211	3210267	921355	PF	06/24/2021	92A.44

VIOLATION	PF INSPECTOR	INSP REGION
NPDES - Violation of effluent limits in Part A of permit	DUNN,HOWARD	SWRO