pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES/WQM PERMITS FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0080616 & WQM 0185402**
Facility Type	**Non-Municipal**	APS ID	**1005223**
Major / Minor	**Minor**	Authorization ID	**1294593 & 1295060**

Applicant and Facility Information

Applicant Name	**Mountain View MHP Management, LLC**	Facility Name	**Mountain View MHP**
Applicant Address	2846 Main Street, Box 12A	Facility Address	203 Rife Road
	Morgantown, PA 19543-9490		East Berlin, PA 17316
Applicant Contact	James Perano	Facility Contact	James Perano
Applicant Phone	(610) 286-0490	Facility Phone	(610) 286-0490
Client ID	353440	Site ID	249933
Ch 94 Load Status	Not Overloaded	Municipality	Reading Township
Connection Status		County	Adams
Date Application Received	October 24, 2019	EPA Waived?	Yes
Date Application Accepted	November 5, 2019	If No, Reason	
Purpose of Application	NPDES permit renewal & transfer.		

Summary of Review

Pleasant Valley Rentals, LLC has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its National Pollutant Discharge Elimination System (NPDES) permit. The permit was issued on August 28, 2012 and became effective on October 1, 2012. The permit authorized discharge of treated sewage from the existing wastewater treatment plant (WWTP) located in Reading Township, Adams County to Conewago Creek. The existing permit expiration date was September 30, 2017, and the permit has been administratively extended since that time.

On November 4, 2019, Department of Environmental Protection (DEP) received a permit transfer application from Mr. James Perano, requesting the permit be amended to reflect a change in ownership from Pleasant Valley Rentals, LLC (owned by Mr. Tim Hill) to Mountain View MHP Management, LLC (Mr. James Perano, Chief Operating Officer).

WQM permit No. 0185402 was originally issued on February 7, 1986. It will be transferred in conjunction with issuance of the final NPDES permit.

Changes from the previous permit: Unit of Fecal Coliform changed from CFU/100 ml to No./100 ml.

Based on the review outline in this fact sheet, it is recommended that the permit be drafted and published in the Pennsylvania Bulletin for public comments for 30 days.

Approve	Deny	Signatures	Date
X		Hilary H. Le / Environmental Engineering Specialist	November 22, 2019
		Daniel W. Martin, P.E. / Environmental Engineer Manager	
		Maria D. Bebenek, P.E. / Clean Water Program Manager	

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.011
Latitude	39º 56' 38.32"	Longitude	-76º 59' 3.42"
Quad Name	Abbottstown	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Conewago Creek (WWF)	Stream Code	08303
NHD Com ID	57470175	RMI	38.82 miles
Drainage Area	219 mi.^{2}	Yield (cfs/mi^2)	0.066 cfs/mi.^{2}
Q_{7-10} Flow (cfs)	14.5 cfs	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	385.8	Slope (ft/ft)	
Watershed No.	7-F	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Wrightsville Borough Municipal Authority, York County		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI	28.51 miles	Distance from Outfall (mi)	Approximate 51.5 miles

Changes Since Last Permit Issuance: none

Drainage Area

The discharge is to Conewago Creek at RMI 38.82 miles. A drainage area upstream of the discharge is estimated to be 219 sq.mi, according to USGS PA StreamStats available at https://streamstats.usgs.gov/ss/.

Streamflow

According to StreamStats, the discharge point on Conewago Creek has a Q_{7-10} of 14.5 cfs and a drainage area of 219 mi^2, which results in a Q_{7-10} low flow yield of 0.066 cfs/mi^2. This information is used to obtain a chronic or 30-day (Q_{30-10}), and an acute or 1-day (Q_{1-10}) exposure stream flow for the discharge point as follows (Guidance No. 391-2000-023):

Q_{7-10} = 14.5 cfs
Low Flow Yield = 14.5 cfs / 219 mi^2 ≈ 0.066 cfs/mi^2
Q_{30-10} = 1.36 * 14.5 cfs ≈ 19.7 cfs
Q_{1-10} = 0.64 * 14.5 cfs ≈ 9.3 cfs

Public Water Supply

The nearest downstream public water supply intake is the Wrightsville Borough Municipal Authority on the Susquehanna River in York County, approximately 51.5 miles downstream of this discharge. Considering distance and dilution, the discharge is not expected to impact the water supply.

Treatment Facility Summary				
Treatment Facility Name: Mountainview MHP				
WQM Permit No.	**Issuance Date**			
0185402	2/7/1986			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Tertiary	Extended Aeration With Solids Removal	Hypochlorite	0.011
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.011		Not Overloaded	Aerobic Digestion	Other WWTP

Changes Since Last Permit Issuance: none

Other Comments:

The WWTP train is as follows:

Bar Screen (1) ⇒ Aeration Tanks (2) ⇒ Settling Tanks (2) ⇒ Dosing Tank (1) ⇒ Sand Filters (2) ⇒ Chlorine Contact Tank (1) ⇒ Discharge (outfall)

The system incorporates chemical additions of alum & soda ash to control pH, and sodium hypochlorite for disinfection. A sludge holding tank is used for solids storage.

Compliance History	
Summary of DMRs:	DMRs reported last 12 months from October 1, 2018 to September 30, 2019 are summarized in the Table below.
Summary of Inspections:	4/18/2016: Bob Haines, DEP Water Quality Specialist, conducted a routine inspection. The monitoring/maintenance issue was noted at the time of inspection such as failure to properly document monitoring activities (Violation of NPDES Permit No. PA0080616 Part A.III.A.3), and failure to collect representative samples (violation of the NPDES Permit No. PA0080616 Part A.II.A.1 and Part A.II-Definition for Composite sample). 11/21/2017: Mr. Bowen, DEP Water Quality Specialist, conducted a compliance evaluation inspection. The recommendations were ensuring effluent composite sampler runs for at least 24 hours during each sampling event, and evaluate solid levels, adjust as necessary. However, there were no violations identified during the inspection.
Other Comments:	There are currently no open violations associated with the permittee or the facility.

Compliance History

DMR Data for Outfall 001 (from October 1, 2018 to September 30, 2019)

Parameter	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18
Flow (MGD) Average Monthly	0.0074	0.0088	0.0079	0.0077	0.0075	0.0078	0.0088	0.009	0.00816	0.0081	0.0075	0.0075
Flow (MGD) Daily Maximum	0.0128	0.0117	0.0106	0.0129	0.0105	0.0105	0.0126	0.0138	0.0117	0.0111	0.0136	0.0116
pH (S.U.) Minimum	7.2	6.8	7.0	6.8	6.7	6.6	6.8	6.7	6.6	6.7	6.6	6.9
pH (S.U.) Maximum	8.2	8.1	7.5	7.3	7.4	7.3	7.4	7.3	7.3	7.5	7.6	8.0
DO (mg/L) Minimum	7.9	6.2	7.0	9.4	6.9	6.0	7.0	9.1	6.0	6.2	6.0	6.2
TRC (mg/L) Average Monthly	< 0.22	< 0.14	0.23	0.28	< 0.26	0.09	< 0.21	0.22	0.17	0.21	0.27	0.16
TRC (mg/L) Instantaneous Maximum	0.54	0.62	0.56	0.48	0.67	0.26	0.45	0.57	0.43	0.43	0.69	0.44
$CBOD_5$ (mg/L) Average Monthly	< 3	< 3	< 3	< 3	< 3	< 11	< 4	< 3	3	< 3	< 3	< 3
TSS (mg/L) Average Monthly	4	4	6	6	4	10	3	2	4	1	2	3
Fecal Coliform (CFU/100 ml) Geometric Mean	< 26	< 2	97	< 7	< 5	47	< 15	35	400	111	< 1	40
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	330	< 2	112	24	12	1120	120	70	600	620	< 2	68
Ammonia (mg/L) Average Monthly	< 0.12	< 1.9	2.49	3.4	3.1	< 3.9	< 0.13	< 0.11	6.3	5.7	1.04	0.89
Total Phosphorus (mg/L) Average Monthly	1.8	0.67	0.91	0.72	0.21	1.4	1.5	1.8	0.34	0.12	0.18	0.23

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .011
Latitude 39º 56' 39.14" **Longitude** -76º 59' 3.37"
Wastewater Description: Sewage Effluent

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)

Water Quality-Based Limitations

Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)
Only the minimum treatment requirements of secondary treatment will be necessary to protect water quality. The existing limits of 25 mg/L average monthly and 50 mg/L instantaneous maximum will remain in the permit. The facility has consistently achieved $CBOD_5$ levels well below these limits.

Ammonia (NH_3-N)
NH_3-N calculations are based on the Department's Implementation Guidance of Section 93.7 Ammonia Criteria, dated 11/4/97 (ID No. 391-2000-013). The attached printout of the WQM 7.0 data indicates that at a discharge of 0.011 MGD, limits (rounded according to the NPDES Technical Guidance 362-0400-001) of 25 mg/L NH_3-N as a monthly average and 50 mg/L NH_3-N instantaneous maximum are necessary to protect the aquatic life from toxicity effects. This is less stringent than the previous permit. However, due to anti-backsliding policy, the previous summer limits of 10 mg/L average monthly and 20 mg/L instantaneous maximum will remain in place.

The following data is necessary to determine the in-stream NH_3-N criteria used in the attached WQM 7.0 computer model of the stream:

- Discharge pH = 7.0 (Default)
- Discharge Temperature = 25°C (Default)
- Stream pH = 8.0 (As per previous protection report)
- Stream Temperature = 25ºC (Default for WWF)
- Background NH_3-N = 0 (Default)

Total Suspended Solids (TSS)
The existing limits of 30 mg/L average monthly and 60 mg/L instantaneous maximum will remain in the permit based on the minimum level of effluent quality attainable by secondary treatment based on 25 Pa. Code § 92a.47. Past DMRs and inspection reports show that the facility has been consistently achieving these limits.

Dissolved Oxygen (DO)
A minimum D.O. of 5.0 mg/L is required per 25 Pa. Code § 93.7. This is consistent with the previous permit and current Department criteria.

pH
The effluent discharge pH should remain above 6 and below 9 standard units according to 25 Pa Code § 95.2(2).

Fecal Coliform
The recent coliform guidance in 25 Pa. Code § 92a.47(a)(4) requires a summer technology limit of 200/100 ml as a geometric mean (average monthly) and an instantaneous maximum not greater than 1,000/100ml and 25 Pa. Code § 92a.47(a)(5) requires a winter limit of 2,000/100ml as a geometric mean (average monthly) and an instantaneous maximum not greater than 10,000/100ml, respectively.

Total Residual Chlorine (TRC)
Based on the attached TRC Excel Spreadsheet calculator, which uses the equations and calculations from the Department's May 1, 2003 Implementation Guidance for Total Residual Chlorine (ID No. 391-2000-015), the facility's discharge must meet a monthly average limit of 0.5 mg/L and an instantaneous maximum limit of 1.63 mg/L.

The more stringent limit is the result of a recently implemented best available technology limit of 0.5 mg/l. Based on the DMRs from the past year, the facility has been consistently achieving this limit.

Chesapeake Bay Strategy

According to DEP's Chesapeake Bay Phase II Watershed Implementation Plan (WIP) Wastewater Supplement, this facility is considered a phase 5 non-significant sewage discharger with design flow less than 0.2 MGD but greater than 0.002 MGD. In general, DEP will issue permits for all phase 5 facilities with monitoring and reporting for Total Nitrogen (TN) and Total Phosphorus (TP) throughout the permit term at a frequency no less than annually. Furthermore, DEP's SOP No. BPNPSM-PMT-033 states that in general, at a minimum, monitoring for TN and TP should be included in new and reissued permits for sewage discharges with design flows > 2,000 gpd. At this time, the Department is not requiring a total maximum annual nitrogen or phosphorus loading cap. TN and TP monitoring is already included in the existing permit and will remain in the renewal.

Best Professional Judgment (BPJ) Limitations

Total Phosphorus
This approach is consistent with DEP's SOP No. BPNPSM-PMT-033 as well as the State regulation found in 25 Pa. Code § 96.5(c) which states the following: *"When it is determined that the discharge of phosphorus, alone or in combination with the discharge of other pollutants, contributes or threatens to impair existing or designated uses in a free-flowing surface water, phosphorus discharges from point source discharges shall be limited to an average monthly concentration of 2 mg/l. More stringent controls on point source discharges may be imposed, or may be otherwise adjusted as a result of a TMDL which has been developed*." Phosphorus limits are included in the existing permit and phosphorus removal equipment is in place. Therefore, the existing limits of 2.0 mg/L average monthly and 4.0 mg/L instantaneous maximum will remain in place in accordance with 40 CFR §122.44(l)(1).

Additional Consideration

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

Monitoring Frequency and Sample Type
The facility currently is required to collect daily effluent grab samples for DO, TRC, and pH; bi-monthly effluent 24-hr composite samples of $CBOD_5$, TSS, ammonia-nitrogen, and TP; bi-monthly effluent grab samples of fecal coliform. Based on the best professional judgement of the author, the existing monitoring frequencies are sufficient and necessary. Therefore, the renewal permit monitoring frequencies will remain the same as those specified in the existing permit.

Antidegradation (93.4)
The effluent limits for this discharge have been developed to ensure that existing in-stream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. No High-Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

303d Listed Streams
This discharge is not located on a 303d listed stream segment.

Class A Wild Trout Fisheries
No Class A Wild Trout Fisheries are impacted by this discharge.

Anti-Backsliding

Unless stated otherwise in this fact sheet, all permit requirements proposed in this fact sheet are at least as stringent as existing permit requirements in accordance with 40 CFR §122.44(l)(1).

TRC Results

1	**TRC EVALUATION**					
2	Input appropriate values in A3:A9 and D3:D9					
3	14.5	= Q stream (cfs)		0.5	= CV Daily	
4	0.011	= Q discharge (MGD)		0.5	= CV Hourly	
5	30	= no. samples		1	= AFC_Partial Mix Factor	
6	0.3	= Chlorine Demand of Stream		1	= CFC_Partial Mix Factor	
7	0	= Chlorine Demand of Discharge		15	= AFC_Criteria Compliance Time (min)	
8	0.5	= BAT/BPJ Value		720	= CFC_Criteria Compliance Time (min)	
9	0	= % Factor of Safety (FOS)			=Decay Coefficient (K)	
10	Source	Reference	AFC Calculations		Reference	CFC Calculations
11	TRC	1.3.2.iii	WLA afc = 271.835		1.3.2.iii	WLA cfc = 265.011
12	PENTOXSD TRG	5.1a	LTAMULT afc = 0.373		5.1c	LTAMULT cfc = 0.581
13	PENTOXSD TRG	5.1b	LTA_afc= 101.292		5.1d	LTA_cfc = 154.065
14						
15	Source		Effluent Limit Calculations			
16	PENTOXSD TRG	5.1f	AML MULT = 1.231			
17	PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.500		BAT/BPJ	
18			INST MAX LIMIT (mg/l) = 1.635			
19						
20						
21						
22	WLA afc	**(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...**				
23		**...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**				
24	LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)				
25	LTA_afc	wla_afc*LTAMULT_afc				
26						
27	**WLA_cfc**	**(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...**				
28		**...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**				
29	LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)				
30	**LTA_cfc**	wla_cfc*LTAMULT_cfc				
31						
32	AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))				
33	AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)				
34	INST MAX LIMIT	**1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)**				
35						
36						

WQM 7.0:

MODEL INPUTS

Three nodes were used for the WQM 7.0 model since there is another WWTP discharge within close proximity:

Node 1: Outfall 001

Elevation:	386 ft (USGS National Map Viewer)
Drainage Area:	219 mi^2 (USGS PA StreamStats)
River Mile Index:	38.82 (PA DEP eMapPA)
Low Flow Yield:	0.066 cfs/mi^2
Discharge Flow:	0.011 mgd (NPDES PA0080616 Application)

Node 2: East Berlin Borough WWTP discharge point

Elevation:	385 ft (USGS National Map Viewer)
Drainage Area:	219.5 mi^2 (USGS PA StreamStats)
River Mile Index:	38.60 (PA DEP eMapPA)
Low Flow Yield:	0.066 cfs/mi^2
Discharge Flow:	0.000 mgd

Node 3: Just before confluence of Conewago Creek with Beaver Creek

Elevation:	384.7 ft (USGS National Map Viewer)
Drainage Area:	220 mi^2 (USGS PA StreamStats)
River Mile Index:	37.97 (PA DEP eMapPA)
Low Flow Yield:	0.066 cfs/mi^2
Discharge Flow:	0.000 mgd

Attachment is the WQM7.0 Effluent Limits.

WQM7.0 effluent limits 7112019.pdf

Existing Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.63	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	2,000 Geo Mean	XXX	10,000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	Report	XXX	Report	2/month	24-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	10	XXX	20	2/month	24-Hr Composite
Total Phosphorus	XXX	XXX	XXX	2.0	XXX	4.0	2/month	24-Hr Composite

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	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.63	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	2,000 Geo Mean	XXX	10,000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	10	XXX	20	2/month	24-Hr Composite
Total Phosphorus	XXX	XXX	XXX	2.0	XXX	4.0	2/month	24-Hr Composite

Compliance Sampling Location:

Other Comments:

Tools and References Used to Develop Permit	
☒	WQM for Windows Model (see Attachment)
☐	PENTOXSD for Windows Model (see Attachment)
☒	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Toxics Screening Analysis Spreadsheet (see Attachment)
☐	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.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☒	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☒	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 391-2000-022, 3/1999.
☒	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other: