

Southcentral Regional Office CLEAN WATER PROGRAM

Application Type
Renewal
NonFacility Type
Municipal
Major / Minor
Minor

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application No. **PA0246387**APS ID **356641**

Authorization ID 1215393

	Applicant and Facility Information							
Applicant Name	Rustic Meadows Camping & Golf Resort Inc.	Facility Name	Rustic Meadows Campground STP					
Applicant Address	1980 Turnpike Road	Facility Address	1980 Turnpike Road					
	Elizabethtown, PA 17022-9542	<u>_</u>	Elizabethtown, PA 17022-9542					
Applicant Contact	Karl Schmidt	Facility Contact	Karl Schmidt					
Applicant Phone	(717) 367-7718	Facility Phone	_(717) 367-7718					
Client ID	160123	Site ID	261205					
Ch 94 Load Status	Not Overloaded	Municipality	West Donegal Township					
Connection Status	No Limitations	County	Lancaster					
Date Application Rece	eived January 10, 2018	EPA Waived?	Yes					
Date Application Acce	epted February 14, 2018	If No, Reason						
	epted February 14, 2018	_	Yes					

Summary of Review

Rustic Meadows Camping and Golf Resort, Inc. 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 July 30, 2013 and became effective on August 1, 2013. The permit authorized discharge of treated sewage from the existing wastewater treatment plant (WWTP) located in West Donegal Township, Lancaster County into Unnamed Tributary to Snitz Creek. The existing permit expiration date was July 31, 2018, and the permit has been administratively extended since that time.

As per the previous fact sheet, Rustic Meadows Campground is a recreational facility that contains 195 campsites, 5 mobile homes, 4 bathhouses, 2 primitive cabins, and a residential dwelling. The facility replaced on-lot disposal systems which served the existing dwelling and five mobile homes and campsites. The Water Quality Management permit was issued on January 22, 2003 for construction and operation of the 0.01215 million gallons per day (mgd) treatment plant (#3602416). This is a seasonal campsite where the WWTP is shut down for the winter.

Changes in this renewal: No changes have been made to the limits from the existing permit.

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-

Approve	Deny	Signatures	Date
		Benjamin R. Lockwood / Environmental Engineering Specialist	August 26, 2019
		Daniel W. Martin, P.E. / Environmental Engineer Manager	
		Maria D. Bebenek, P.E. / Program Manager	

Summary of Review

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.

Supplemental information for this report is located in an attachment below:



Discharge, Receiving	Water	s and Water Supply Inform	ation				
Outfall No. 001			Design Flow (MGD)	.01215			
Latitude 40° 8'	8"		Longitude	76º 39' 26"			
Quad Name Mid	ldletow	n	Quad Code	1732			
Wastewater Descrip	tion:	Sewage Effluent					
David to Materia		med Tributary to Snitz Creek		00000			
Receiving Waters		F, MF)	Stream Code	09209			
NHD Com ID	57463	3263	RMI	0.21			
Drainage Area	0.18 r	ni ²	Yield (cfs/mi²)	0.12			
Q ₇₋₁₀ Flow (cfs)	0.021	6	Q ₇₋₁₀ Basis	USGS Gage # 01576500			
Elevation (ft)	460		Slope (ft/ft)				
Watershed No.	7-G		Chapter 93 Class.	WWF			
Existing Use	N/A		Existing Use Qualifier	N/A			
Exceptions to Use	N/A		Exceptions to Criteria	N/A			
Assessment Status		Attaining Use(s)					
Cause(s) of Impairm	nent	N/A					
Source(s) of Impairr	ment	N/A					
TMDL Status N/A		Name N/A					
Nearest Downstrear	n Publi	c Water Supply Intake	Columbia Water Company				
PWS Waters S	Susquel	nanna River	Flow at Intake (cfs)				
PWS RMI			Distance from Outfall (mi) 17				

Changes Since Last Permit Issuance: A drainage area of 0.18 mi² and a Q_{7-10} flow of 0.0216 cubic feet per second (cfs) were determined by establishing a correlation to the yield of USGS Gage Station #01576500 on the Conestoga River. The Q_{7-10} and drainage area at the gage are 38.6 cfs and 324 mi², respectively. These values are taken from the USGS document "Selected Streamflow Statistics for Streamgage Locations in and near Pennsylvania". The Q_{7-10} runoff rate at the gage station was calculated as follows:

Yield = $(38.6 \text{ cfs})/324 \text{ mi}^2 = 0.12 \text{ cfs/mi}^2$

The drainage area at the discharge point, taken from USGS PA StreamStats = 0.18 mi²

The Q_{7-10} at the discharge point = 0.18mi² x 0.12 cfs/mi² = 0.0216 cfs

The Q₇₋₁₀ is very low, and this receiving stream is considered a dry stream. It was determined in 1999 and 2001 by the Department's aquatic biologist that the point of first use is to be at the outfall with little to no dilution. This receiving stream flows about 1,000' prior to the main stem of Snitz Creek. Stringent effluent limitations have been applied to compensate for the lack of available assimilative capacity and to minimize the potential for nuisance conditions.

	Tr	eatment Facility Summar	у	
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Extended Aeration With Solids Removal	Ultraviolet	0.01215
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.01215	47	Not Overloaded	Aerobic Digestion	Other WWTP

Changes Since Last Permit Issuance: The treatment process is as follows: Bar Screen – Equalization Tank – Aeration Tank – Clarifier – Two (2) Tertiary Sand Filters – UV Disinfection – Sludge Holding Tank – Outfall 001 to UNT to Snitz Creek

	Compliance History
Summary of DMRs:	A summary of the past 12-month DMR effluent data is presented on the next page of this fact sheet.
Summary of Inspections:	6/30/2014: A routine inspection was conducted by Andrew Hall, DEP Water Quality Specialist. The treatment plant looked to be in good operating form; the mixed liquor in the aeration tank had a good color and the effluent from the clarifier was clear. Samples were taken from the effluent weir prior to discharge, and all results were within parameter limits. 4/21/2015: A routine inspection was conducted by Bob Haines, DEP Water Quality Specialist. An effluent grab sample was not taken during the inspection as there was no active flow. The campground operation is seasonal, and the plant was just recently started up. The outfall was checked and was clear. The clarifier had a thin solids layer on the supernatant surface, but the channel was clear. The plant appeared to be in good working
	order overall. 6/8/2016: A routine inspection was conducted by Sheena Ripple, DEP Water Quality Specialist. It was noted that there were heavy solids on the clarifier. The outfall was inspected, and the plant was not discharging.

Other Comments: There are currently no open violations associated with the permittee or the facility.

Compliance History

DMR Data for Outfall 001 (from July 1, 2018 to June 30, 2019)

Parameter	JUL-18	AUG-18	SEP-18	OCT-18	NOV-18	DEC-18	JAN-19	FEB-19	MAR-19	APR-19	MAY-19	JUN-19
Flow (MGD)												
Average Monthly	0.00781	0.00794	0.00733	0.00401	0.00468					0.00134	0.00344	0.00389
Flow (MGD)												
Daily Maximum	0.01302	0.01487	0.01231	0.01647	0.00856					0.00403	0.00998	0.00594
pH (S.U.)												
Minimum	6.2	6.1	6.5	6.2	7.4					7.2	6.7	6.5
pH (S.U.)												
Maximum	7.7	7.5	7.9	7.7	8.1					8.4	7.6	7.4
DO (mg/L)												
Minimum	5.2	5.2	5.3	6.8	7.6					5.7	5.1	5.5
CBOD5 (mg/L)	_		_	_	_					_	_	
Average Monthly	5	4	4	3	< 3					< 3	< 3	< 3.0
CBOD5 (mg/L)												
Instantaneous	_	_	_	_	_					_	_	
Maximum	5	5	5	3	< 3					3	< 3	< 3.0
TSS (mg/L)			_							_	_	
Average Monthly	3	2	1	4	4.0					5	5	2
TSS (mg/L)												
Instantaneous					4.0							
Maximum	4	2	1	6	4.0					8	8	3
Fecal Coliform												
(CFU/100 ml)	50	9	4		< 2.0					< 2	.45	41
Geometric Mean	59	9	1	< 2	< 2.0					< 2	< 15	41
Fecal Coliform												
(CFU/100 ml) Instantaneous												
Maximum	136	10	8	2	< 2.0					< 2	112	50
UV Transmittance (%)	130	10	0		< 2.0					< 2	112	50
Minimum	100	100	100	100	100					100	100	100
Total Nitrogen	100	100	100	100	100					100	100	100
(lbs/day)												
Annual Average						1.187						
Total Nitrogen (mg/L)						1.107						
Annual Average						41.03						
Total Nitrogen (lbs)												
Total Annual						256.47						
Ammonia (mg/L)						200						
Average Monthly	0.34	0.27	1.84	0.11	< 0.1					< 0.10	< 0.1	< 0.1

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Ammonia (mg/L) Instantaneous	0.07	0.00	0.5	0.40	0.4			0.40	0.4	0.4
Maximum	0.37	0.30	3.5	0.12	< 0.1			< 0.10	< 0.1	< 0.1
Total Phosphorus										
(lbs/day)										
Annual Average						0.147				
Total Phosphorus										
(mg/L)										
Annual Average						5.1				
Total Phosphorus (lbs)										
Total Annual						31.75				

Existing Effluent Limitations and Monitoring Requirements

The table below summarizes the effluent limits and monitoring requirements implemented in the existing NPDES permit.

Outfall 001

			Effluent Lii	mitations			Monitoring Re	quirements
Parameter	Mass Units	(lbs/day) ⁽¹⁾		Concentrati	Minimum (2)	Required		
r al allietei	Average Monthly	Daily Maximum	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum	Measurement Frequency	Sample Type
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
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Metered
CBOD5	XXX	XXX	XXX	10	XXX	20	2/month	Grab
TSS	XXX	XXX	XXX	10	XXX	20	2/month	Grab
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	9.0	XXX	18	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6.0	2/month	Grab
Total Nitrogen	Report Annl Avg	Report Total Annual	XXX	Report Annl Avg	XXX	XXX	1/year	Calculation
Total Phosphorus	Report Annl Avg	Report Total Annual	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite

Development of Effluent Limitations				
Outfall No.	001	Design Flow (MGD)	.01215	
Latitude	40° 8′ 8″	Longitude	76° 39' 26"	
Wastewater D	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
CBOD₅	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
CBOD5	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
Solids	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pН	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

Pursuant to 40 CFR § 122.44(d)(1)(i), more stringent requirements should be considered when pollutants are discharged at the levels which have the reasonable potential to cause or contribute to excursions above water quality standards.

WQM 7.0 ver. 1.0b is a water quality model designed to assist DEP in determining appropriate water quality based effluent limits (WQBELs) for carbonaceous biochemical oxygen demand (CBOD5), ammonia (NH3-N), and dissolved oxygen (D.O.). The model simulates two basic processes: In the NH3-N module, the model simulates the mixing and degradation of NH3-N in the stream and compares calculated instream NH3-N concentrations to NH3-N water quality criteria. In the D.O. module, the model simulates the mixing and consumption of D.O. in the stream due to the degradation of CBOD5 and NH3-N and compares calculated instream D.O. concentrations to D.O. water quality criteria. The model then determines the highest pollutant loadings that the stream can assimilate while still meeting water quality criteria under design conditions. DEP's Technical Guidance No. 391-2000-007 provides the technical methods contained in WQM 7.0 for determining wasteload allocations and for determining recommended NPDES effluent limits for point source discharges. The model was utilized for this permit application. The flow data used to run the model was acquired from USGS PA StreamStats, and USGS Gage # 01576500 on the Conestoga River, and is included in an attachment. The model output indicated a CBOD5 average monthly limit of 25 mg/l, an NH3-N average monthly limit of 4.27 mg/l, and a D.O. minimum limit of 5.0 mg/l were protective of water quality. These limits are less stringent than the limits in the existing permit; therefore, the existing permit limits will remain in place.

There are no industrial/commercial users contributing industrial wastewater to the system and Rustic Meadows does not currently have an EPA-approved pretreatment program. Accordingly, evaluating reasonable potential of toxic pollutants is not necessary as effluent levels of toxic pollutants are expected to be insignificant.

Best Professional Judgement (BPJ) Limitations

CBOD₅ and TSS

The existing $CBOD_5$ and TSS limits were based on DEP's dry stream guidance, Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers (ID# 391-2000-014). This guidance recommends limits for $CBOD_5$ and TSS of 10 mg/l as a monthly average, and states that seasonal adjustments should not be applied. This is consistent with the existing limits in the permit, which will remain in place.

NH₃-N

The existing limit of 3.0 mg/l was based on the previous dry stream guidance (08/1997). An average monthly limit of 3.0 mg/l was necessary since this dry stream is nearby a recreational facility. This limit will remain in place in the renewal permit.

Dissolved Oxygen (D.O.)

A minimum D.O. limit of 5.0 mg/L is a D.O. water quality criterion found in 25 Pa. Code § 93.7(a). This limit is included in the existing NPDES permit. This limit will continue to be included in the permit to ensure that the facility continues to achieve compliance with DEP water quality standards.

UV Monitoring

DEP's SOP No. BPNPSM-PMT-033 recommends at a minimum, routine monitoring of UV transmittance, dosage, or intensity when the facility is utilizing a UV disinfection system. The monitoring should occur at the same frequency as would be used for TRC. This recommendation was implemented as a part of the proper operation and maintenance requirement specified in Part B of the NPDES permit, requesting permittees to demonstrate the effectiveness of UV disinfection system. This approach has been assigned to other facilities equipped with similar technology. A parameter for UV Transmittance is included in the existing permit, and will remain in the renewal.

Additional Considerations

Chesapeake Bay Total Maximum Daily Load (TMDL)

DEP developed a strategy to comply with the EPA and Chesapeake Bay Foundation requirements by reducing point source loadings of Total Nitrogen (TN) and Total Phosphorus (TP). This strategy can be located in the *Pennsylvania Chesapeake Watershed Implementation Plan* (WIP), dated January 11, 2011. Subsequently, an update to the WIP was published as the Phase 2 WIP. As part of the Phase 2 WIP, a *Phase 2 Watershed Implementation Plan Wastewater Supplement* (Phase 2 Supplement) was developed, providing an update on TMDL implementation for point sources and DEP's current implementation strategy for wastewater. The Phase 2 Supplement was most recently revised on September 6, 2017. Sewage discharges have been prioritized based on their design flow to the Bay. The highest priority (Phases 1, 2, and 3) dischargers will receive annual Cap Loads based on their design flow on August 29, 2005 and concentrations of 6 mg/l TN and 0.8 mg/l TP. These limits may be achieved through a combination of treatment technology, credits, or offsets. For Phase 4 and 5 facilities, Cap Loads are not currently being implemented for renewed or amended permits for facilities that do not increase design flow.

This facility is considered a Phase 5 non-significant discharger with a design flow less than 0.2 MGD but greater than 0.002 MGD. According to DEP's latest-revised Phase 2 Supplement, issuance of permits with monitoring and reporting for TN and TP is recommended for any Phase 5 non-significant sewage facilities (i.e., facilities with average annual design flows on August 29, 2005 less than 0.2 MGD but greater than 0.002 MGD). 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. TN and TP monitoring is already included in the existing permit and will remain in the renewal.

Anti-Degradation (93.4)

The effluent limits for this discharge 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. No High Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

303d Listed Streams

The discharge is located on a stream segment that is designated on the 303(d) list as attaining uses.

Class A Wild Trout Fisheries

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

Anti-Backsliding

Pursuant to 40 CFR § 122.44(I)(1), all proposed permit requirements addressed in this fact sheet are at least as stringent as the requirements implemented in the existing NPDES permit unless any exceptions addressed by DEP in this fact sheet.

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.

			Effluent Lii	mitations			Monitoring Re	quirements
Parameter	Mass Units	s (lbs/day) (1)		Concentrati		Minimum (2)	Required	
Farameter	Average Monthly	Average Weekly	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum	Measurement Frequency	Sample Type
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
CBOD5	XXX	XXX	XXX	10	XXX	20	2/month	Grab
TSS	XXX	XXX	XXX	10	XXX	20	2/month	Grab
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
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Metered
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6.0	2/month	Grab
Total Nitrogen	Report Annl Avg	Report Total Annual	XXX	Report Annl Avg	XXX	XXX	1/year	Calculation
Total Phosphorus	Report Annl Avg	Report Total Annual	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite

Compliance Sampling Location: Outfall 001

Other Comments: None

	Tools and References Used to Develop Permit
	T
	WQM for Windows Model (see Attachment)
	PENTOXSD for Windows Model (see Attachment)
	TRC Model Spreadsheet (see Attachment)
Ц	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.
\boxtimes	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
\boxtimes	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: