

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

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0081345
 APS ID 311209
 Authorization ID 1285429

Applicant and Facility Information

Applicant Name	<u>Grier Foundation</u>	Facility Name	<u>Grier School</u>
Applicant Address	<u>2522 Grier School Road PO Box 308</u> <u>Tyrone, PA 16686-0308</u>	Facility Address	<u>Grier School Road</u> <u>Tyrone, PA 16686</u>
Applicant Contact	<u>Robert Fowler</u>	Facility Contact	<u>Robert Fowler</u>
Applicant Phone	<u>(814) 684-3000</u>	Facility Phone	<u>(814) 684-3000</u>
Client ID	<u>43830</u>	Site ID	<u>453118</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Warriors Mark Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Huntingdon</u>
Date Application Received	<u>August 5, 2019</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>August 28, 2019</u>	If No, Reason	<u></u>
Purpose of Application	<u>NPDES Permit Renewal.</u>		

Summary of Review

Grier School has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its NPDES permit. The permit was last reissued on May 26, 2015 and became effective on June 1, 2015. The permit expires on May 31, 2020.

Grier School owns, operates, and maintains the wastewater treatment plant located in Warriors Mark Townships, Huntingdon County. The aeration secondary treatment plant discharges treated municipal wastewater to Little Juniata River, which is classified for High Quality-Cold Water Fishes (HQ-CWF). The collection system has 100% sewers from Warriors Mark Township. The facility has a design average annual flow of 0.0225 MGD.

WQM Part II No. 3113401 was issued in 1995. The WQM permit No. 3113401 A-1 was amended on 2/18/2014 to add aerobic sludge digestion capability to the treatment process.

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	March 30, 2020
		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)	0.0225
Latitude	40° 38' 42.55"	Longitude	-78° 11' 51.30"
Quad Name	Tyrone	Quad Code	
Wastewater Description: Sewage Effluent			
Receiving Waters	Little Juniata River (HQ-CWF (existing use))	Stream Code	15664
NHD Com ID	65604836	RMI	12.22 miles
Drainage Area	179 mi. ²	Yield (cfs/mi ²)	0.07
Q ₇₋₁₀ Flow (cfs)	13.2	Q ₇₋₁₀ Basis	USGS StreamStats
Elevation (ft)	833	Slope (ft/ft)	
Watershed No.	11-A	Chapter 93 Class.	CWF
Existing Use	HQ-CWF (High Quality-Cold Water Fishes)	Existing Use Qualifier	Designated Class A Wild Trout
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	Mifflintown Borough Municipal Authority, Juniata County		
PWS Waters	Juniata River	Flow at Intake (cfs)	
PWS RMI	34.4 miles	Distance from Outfall (mi)	Approximate 80 miles

Changes Since Last Permit Issuance:

Drainage Area

The discharge is to Little Juniata River at RMI 12.2 miles. A drainage area upstream of the discharge is estimated to be 179 mi.², according to USGS PA StreamStats available at <https://streamstats.usgs.gov/ss/>.

Stream Flow

According to USGS StreamStats, the point of first use at the confluence with Little Juniata River (Stream Code 15664) has a Q₇₋₁₀ of 13.2 cfs and a drainage area of 179 mi.², which results in a Q₇₋₁₀ low flow yield of 0.07 cfs/mi.². This information is used to obtain a chronic or 30-day (Q₃₀₋₁₀), and an acute or 1-day (Q₁₋₁₀) exposure stream flow for the discharge point as follows (Guidance No. 391-2000-023):

$$\begin{aligned}
 Q_{7-10} &= 13.2 \text{ cfs} \\
 \text{Low Flow Yield} &= 13.2 \text{ cfs} / 179 \text{ mi.}^2 = 0.07 \text{ cfs/mi.}^2 \\
 Q_{30-10} &= 1.36 * 13.2 \text{ cfs} = 17.95 \text{ cfs} \\
 Q_{1-10} &= 0.64 * 13.2 \text{ cfs} = 8.45 \text{ cfs}
 \end{aligned}$$

The resulting Q₇₋₁₀ dilution ratio is: $Q_{\text{stream}} / Q_{\text{discharge}} = 13.2 \text{ cfs} / [0.0225 \text{ MGD} * (1.55 \text{ cfs/MGD})] = 378.2:1$

Little Juniata River

Under 25 Pa Code § 93.9n, the Little Juniata River is designated as Class A Wild Trout and HQ-CWF during the permit cycle. Since the discharge predates the designation and the stream is attaining its uses, no further action is warranted at this time. Integrate Report 2018, Little Juniata River (Assessment Unit ID 16851) is not impaired.

Potable Water Supply Intake

The nearest downstream public water supply intake is the Mifflintown Borough Municipal Authority, Juniata County intake on the Juniata River, approximately 80 miles from the point of discharge. Given the nature and dilution, the discharge is not expected to significantly impact the water supply.

Treatment Facility Summary				
Treatment Facility Name: Grier School				
WQM Permit No.		Issuance Date		
3113401		1995		
3113401 A-1		2/18/2014		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Hypochlorite	0.0225
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0225		Not Overloaded	Aerobic Digestion	Combination of methods

Changes Since Last Permit Issuance:

The WWTP train is as follows:

Comminutor (1) ⇒ Aeration Tank (1) ⇒ Clarifier (1) ⇒ Chlorine Contact Tank (1) ⇒ Post Aeration (1) ⇒ Sludge Holding Tank (1) ⇒ Discharge

Chlorine is used for disinfection.

Compliance History	
Summary of DMRs:	DMRs reported last 12 months from February 1, 2019 to January 31, 2020 are summarized in the Table below (Page # 4)
Summary of Inspections:	<p>1/23/2020: Mr. Clark, DEP WQS, conducted compliance evaluation inspection. There were some recommendations such as record grab and analysis times for daily effluent test, record each grab time for 8 hours composite sample, and perform additional process control testing. The effluent was clear and field tests results were within permit limits. There were no violations noted during inspection.</p> <p>1/8/2019: Mr. Clark, DEP WQS, conducted compliance evaluation inspection. There were some recommendations such as record grab and analysis times for daily effluent test, review and correct annual Chesapeake Bay supplemental form, and review and correct the sludge disposal supplemental form. The field test results were within permit limits. There were no violations noted during inspection.</p> <p>12/7/2017: Mr. Clark, DEP WQS, conducted compliance evaluation inspection. There were some recommendations such as correct sludge disposal supplemental form included with November 2017 eDMR, and attach Chesapeake Bay Supplemental report to quarterly reports. The field test results were within permit limits. There were no violations noted during inspection.</p>
Other Comments:	There is an open violation associated with this facility or permittee such as failure to take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of a permit [violation date 5/6/2019, code 92A.41(A)4].

Other Comments: DMRs for the past 12 months indicated compliance with permitted limits.

Compliance History

DMR Data for Outfall 001 (from February 1, 2019 to January 31, 2020)

Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
Flow (MGD) Average Monthly	0.004435	0.004461	0.005062	0.005747	0.003949	0.001230	0.001108	0.000681	0.005380	0.005773	0.003288	0.007488
Flow (MGD) Daily Maximum	0.012420	0.012111	0.009943	0.012042	0.006497	0.004070	0.003839	0.002718	0.007425	0.007734	0.006617	0.012409
pH (S.U.) Minimum	7.7	7.4	7.6	7.6	7.5	7.5	7.2	6.8	7.5	7.6	7.6	7.4
pH (S.U.) Instantaneous Maximum	8.2	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.0	8.2	8.1
DO (mg/L) Minimum	7.9	8.0	8.6	7.5	7.8	7.5	7.7	8.0	7.7	8.5	8.9	7.7
TRC (mg/L) Average Monthly	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.4	0.4
TRC (mg/L) Instantaneous Maximum	1.0	0.8	0.6	0.7	0.4	0.5	0.8	0.8	0.6	0.8	0.9	0.8
CBOD5 (mg/L) Average Monthly	13.01	5.8	5.63	3.42	3.03	< 3.00	3.2	12.5	7.8	5.9	4.07	< 3.00
TSS (mg/L) Average Monthly	6.9	9.8	8.4	8.0	3.2	1.8	2.20	16.2	16.8	5.4	4.30	3.00
Fecal Coliform (CFU/100 ml) Geometric Mean	< 4.0	< 4.0	165.5	10.0	< 4.0	9.12	< 4.0	6.3	281.0	11.0	83.5	< 4.0
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	< 4.0	< 4.0	5475.0	25.2	< 4.0	20.8	< 4.0	10	805.6	30.0	95.2	< 4.0
Nitrate-Nitrite (mg/L) Average Quarterly		0.0007			0.04			2.40			0.25	
Total Nitrogen (mg/L) Average Quarterly		22.63			0.4			26.43			0.25	
TKN (mg/L) Average Quarterly		22.62			0.001			< 1.000			0.008	
Total Phosphorus (mg/L) Average Quarterly		3.02			0.3			3.78			0.04	

Development of Effluent Limitations

Outfall No. <u>001</u>	Design Flow (MGD) <u>0.0225</u>
Latitude <u>40° 38' 42.86"</u>	Longitude <u>-78° 11' 49.63"</u>
Wastewater Description: <u>Sewage Effluent</u>	

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 (CBOD₅):

The attached computer printout of the WQM 7.0 stream model indicates that a monthly average limit of 25 mg/L, or secondary treatment, is adequate to protect the water quality of the stream. However, the existing limits of 25 mg/L monthly average, and 50 mg/L instantaneous maximum will remain in the proposed permit as per guidance document 391-2000-014. Recent DMRs and inspection reports show that the facility has been consistently achieving these limits.

Total Suspended Solids (TSS):

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

Ammonia (NH₃-N):

NH₃N 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 following data is necessary to determine the in-stream NH₃-N criteria used in the attached WQM 7.0 computer model of the stream:

*	Discharge pH	=	7.0	(Default)
*	Discharge Temperature	=	20°C	(Default)
*	Stream pH	=	7.0	(Default)
*	Stream Temperature	=	25°C	(Default for CWF)
*	Background NH ₃ -N	=	0 mg/L	(Default)

The attached computer printout of the WQM 7.0 stream model indicates that no limitation on NH₃ as a monthly average is necessary to protect the aquatic life from toxicity effects.

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(1).

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 and an instantaneous maximum not greater than 1,000/100 ml and 25 Pa Code § 92a.47.(a)(5) requires a winter limit of 2,000/100 ml as a geometric mean and an instantaneous maximum not greater than 10,000/100 ml.

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 1.6 mg/L. These limits are the same as those in the existing permit. The facility has been meeting the limits consistently.

Chesapeake Bay Strategy:

The Department formulated 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). Sewage discharges have been prioritized by Central Office based on their delivered TN loadings to the Bay. The highest priority (Phases I, II, and III) dischargers will receive annual loading caps 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. Phase IV (0.2 -0.4 MGD) will be required to monitor and report TN and TP during permit renewal monthly and Phase V (below 0.2 MGD) will monitor during current permit renewal once a year. However, any facility in Phases IV and V that undergoes expansion is subjected to cap load right away. This plant, classified as a phase V, will be required to monitor and report for Total Phosphorus, Nitrate-Nitrite as N, Total Kjeldahl Nitrogen, and Total Nitrogen.

Additionally, according to SOP for establishing effluent limitation for individual sewage, monitoring frequency for nutrients should be equivalent to conventional pollutants in Table 6-3 of DEP's *Technical Guidance for the Development and Specification of Effluent Limitations* (362-0400-001) ("Permit Writer's Manual") where the facility discharges to nutrient-impaired waters, or a lesser frequency for discharges to waters not impaired for nutrients. Quarterly monitoring frequency is required for this discharge since the receiving stream is not nutrient impaired. These requirements will remain in the proposed permit.

Stormwater:

There is no stormwater outfall associated with this facility.

Toxics:

Review of the permit application revealed no toxic parameters of concern. The application states that there are no industrial wastewater contributions.

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:

The 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.

WQM 7.0

Node 1: Outfall 001 on Little Juniata River (15664)
Elevation: 832.85 ft (USGS National Map Viewer)
Drainage Area: 179 mi.² (USGS PA StreamStats)
River Mile Index: 12.2 (PA DEP eMapPA)
Low Flow Yield: 0.07 cfs/mi.²
Discharge Flow: 0.0225 MGD (NPDES Application)

Node 2: Just before confluence Little Juniata River to Sinking Run
Elevation: 773.35 ft (USGS National Map Viewer)
Drainage Area: 189 mi.² (USGS PA StreamStats)
River Mile Index: 8.82 (PA DEP eMapPA)
Low Flow Yield: 0.07 cfs/mi.²
Discharge Flow: 0.000 MGD

WQM 7.0 data is attached.



Grier School WQM
7.0 data.pdf

TRC results

TRC EVALUATION					
Input appropriate values in A3:A9 and D3:D9					
13.2	= Q stream (cfs)		0.5	= CV Daily	
0.0225	= Q discharge (MGD)		0.5	= CV Hourly	
30	= no. samples		1	= AFC_Partial Mix Factor	
0.3	= Chlorine Demand of Stream		1	= CFC_Partial Mix Factor	
0	= Chlorine Demand of Discharge		15	= AFC_Criteria Compliance Time (min)	
0.5	= BAT/BPJ Value		720	= CFC_Criteria Compliance Time (min)	
0	= % Factor of Safety (FOS)			=Decay Coefficient (K)	
Source	Reference	AFC Calculations		Reference	CFC Calculations
TRC	1.3.2.iii	WLA_afc = 120.993		1.3.2.iii	WLA_cfc = 117.951
PENTOXSD TRG	5.1a	LTAMULT_afc = 0.373		5.1c	LTAMULT_cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc = 45.085		5.1d	LTA_cfc = 68.571
Source	Effluent Limit Calculations				
PENTOXSD TRG	5.1f	AML_MULT = 1.231			
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.500		BAT/BPJ	
		INST MAX LIMIT (mg/l) = 1.635			
WLA_afc	$(.019/e^{-k \cdot AFC_tc}) + [(AFC_Yc \cdot Qs \cdot .019 / Qd \cdot e^{-k \cdot AFC_tc}) \dots + Xd + (AFC_Yc \cdot Qs \cdot Xs / Qd)] \cdot (1 - FOS / 100)$				
LTAMULT_afc	$EXP((0.5 \cdot LN(cvh^2 + 1)) - 2.326 \cdot LN(cvh^2 + 1)^{0.5})$				
LTA_afc	wla_afc * LTAMULT_afc				
WLA_cfc	$(.011/e^{-k \cdot CFC_tc}) + [(CFC_Yc \cdot Qs \cdot .011 / Qd \cdot e^{-k \cdot CFC_tc}) \dots + Xd + (CFC_Yc \cdot Qs \cdot Xs / Qd)] \cdot (1 - FOS / 100)$				
LTAMULT_cfc	$EXP((0.5 \cdot LN(cvd^2 / no_samples + 1)) - 2.326 \cdot LN(cvd^2 / no_samples + 1)^{0.5})$				
LTA_cfc	wla_cfc * LTAMULT_cfc				
AML_MULT	$EXP(2.326 \cdot LN((cvd^2 / no_samples + 1)^{0.5}) - 0.5 \cdot LN(cvd^2 / no_samples + 1))$				
AVG MON LIMIT	MIN(BAT_BPJ, MIN(LTA_afc, LTA_cfc) * AML_MULT)				
INST MAX LIMIT	1.5 * ((av_mon_limit / AML_MULT) / LTAMULT_afc)				

Existing Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly		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
Dissolved Oxygen	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
Total Residual Chlorine	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/month	8-Hr Composite
Total Suspended Solids	XXX	XXX	XXX	30	XXX	60	2/month	8-Hr Composite
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/month	Grab
Nitrate-Nitrite as N	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	8-Hr Composite
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	Calculation
Total Kjeldahl Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	8-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	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	1.6	1/day	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50.0	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30.0	XXX	60.0	2/month	8-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
Nitrate-Nitrite	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	8-Hr Composite
Total Nitrogen	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	Calculation
TKN	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	8-Hr Composite

Compliance Sampling Location:

Other Comments:

Tools and References Used to Develop Permit	
<input checked="" type="checkbox"/>	WQM for Windows Model (see Attachment [redacted])
<input type="checkbox"/>	PENTOXSD for Windows Model (see Attachment [redacted])
<input checked="" type="checkbox"/>	TRC Model Spreadsheet (see Attachment [redacted])
<input type="checkbox"/>	Temperature Model Spreadsheet (see Attachment [redacted])
<input type="checkbox"/>	Toxics Screening Analysis Spreadsheet (see Attachment [redacted])
<input type="checkbox"/>	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
<input type="checkbox"/>	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
<input type="checkbox"/>	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
<input type="checkbox"/>	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
<input type="checkbox"/>	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
<input type="checkbox"/>	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
<input type="checkbox"/>	Pennsylvania CSO Policy, 385-2000-011, 9/08.
<input checked="" type="checkbox"/>	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
<input type="checkbox"/>	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
<input type="checkbox"/>	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
<input type="checkbox"/>	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
<input type="checkbox"/>	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.
<input type="checkbox"/>	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
<input type="checkbox"/>	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
<input type="checkbox"/>	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
<input type="checkbox"/>	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
<input type="checkbox"/>	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
<input checked="" type="checkbox"/>	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
<input type="checkbox"/>	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
<input type="checkbox"/>	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 10/97.
<input type="checkbox"/>	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.
<input type="checkbox"/>	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 3/99.
<input type="checkbox"/>	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.
<input type="checkbox"/>	Design Stream Flows, 391-2000-023, 9/98.
<input type="checkbox"/>	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.
<input type="checkbox"/>	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
<input checked="" type="checkbox"/>	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
<input type="checkbox"/>	SOP: [redacted]
<input type="checkbox"/>	Other: [redacted]