

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

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

| Application No. | PA0247715 |
|------------------|-----------|
| APS ID | 1026265 |
| Authorization ID | 1377239 |
| | |

Applicant and Facility Information

| Applicant Name | The Yo | rk Water Co. | Facility Name | Amblebrook WWTP |
|---|---------|-----------------------|------------------|----------------------|
| Applicant Address | 130 Ea | st Market Street | Facility Address | 415 Martin Road |
| | York, P | A 17401 | | Gettysburg, PA 17325 |
| Applicant Contact | Mark W | heeler | Facility Contact | Mark Wheeler |
| Applicant Phone | (717) 7 | 18-7545 | Facility Phone | (717) 718-7545 |
| Client ID | 69800 | | Site ID | 639896 |
| Ch 94 Load Status | Not Ove | erloaded | Municipality | Straban Township |
| Connection Status | No Limi | tations | County | Adams |
| Date Application Received | | November 24, 2021 | EPA Waived? | No |
| Date Application Accepted November 24, 2021 | | November 24, 2021 | If No, Reason | DEP Discretion |
| | | | | |
| Purpose of Application | | NPDES permit renewal. | | |

Summary of Review

The York Water Company has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its National Pollutant Discharge Elimination System (NPDES) permit for Amblebrook Wastewater Treatment Plant. This permit renewal application was received on November 24, 2021. The permit was last reissued on May 5, 2017, authorizing discharge of treated sewage from the existing treatment plant located in Straban Township, Adams County. The permit expired on May 31, 2022.

The NPDES ownership transferred twice since last permit renewal were issued on June 1, 2020 & November 19, 2020.

According to the most recent permit application, the facility receives 100% of its flow from Straban Township. The hydraulic design flow and annual average design flow are 0.27 MGD. The facility construction was completed on April 20, 2022 and began operation on May 4, 2022.

The WQM Part II permit No. 0117401 original issued on January 18, 2018, and ownership transferred 0117401 twice issued on June 1, 2020 & November 19, 2020. The WQM Construction completion date was April 20, 2022.

Sludge use and disposal description and location(s): N/A

<u>Changes from the previous permit</u>: Unit of Fecal Coliform changed from CFU/100 ml to No./100 ml. The E. Coli. monitoring and report requirements will add to the proposed permit.

Based on the review outlined in this fact sheet, it is recommended that the permit be drafted. A public notice of the draft permit will be published in the *Pennsylvania Bulletin* for public comments for 30 days.

| Approve | Deny | Signatures | Date |
|---------|------|--|---------------|
| x | | <i>Hilaryle</i> Hilary H. Le / Environmental Engineering Specialist | May 27, 2022 |
| x | | /s/ Daniel W. Martin, P.E. / Environmental Engineer Manager | June 14, 2022 |

| Discharge, Receiving Waters and Water Supply Information | | | |
|--|---------------------------------|------------------------------|------------------------|
| | | | |
| Outfall No. 001 | | Design Flow (MGD) | 0.27 |
| Latitude 39º 5 | 2' 39.15" | Longitude | -77º 11' 17.79" |
| Quad Name Big | lerville | Quad Code | |
| Wastewater Descrip | otion: Sewage Effluent | | |
| | | | |
| | Unnamed Tributary of Rock Creek | | |
| Receiving Waters | (WWF) | Stream Code | 59207 |
| NHD Com ID | 134238699 | RMI | 0.88 mile |
| Drainage Area | 0.83 mi. ² | Yield (cfs/mi ²) | See comments below |
| Q ₇₋₁₀ Flow (cfs) | See comments below | Q ₇₋₁₀ Basis | See comments below |
| Elevation (ft) | 515 | Slope (ft/ft) | |
| Watershed No. | 13-D | Chapter 93 Class. | WWF |
| Existing Use | | Existing Use Qualifier | |
| Exceptions to Use | | Exceptions to Criteria | |
| Assessment Status | Attaining Use(s) | | |
| Cause(s) of Impairn | nent | | |
| Source(s) of Impair | ment | | |
| TMDL Status | | Name | |
| | | | |
| Nearest Downstrea | m Public Water Supply Intake | ity of Frederick, MD | |
| PWS Waters | Monocacy River | Flow at Intake (cfs) | |
| PWS RMI | | Distance from Outfall (mi) | Approximate 47.0 miles |
| | | () | |

Changes Since Last Permit Issuance:

Drainage Area

The discharge is to Rock Run at RMI 0.88 miles. A drainage area upstream of the discharge is estimated to be 0.83 mi.², according to USGS PA StreamStats available at <u>https://streamstats.usgs.gov/ss/</u>.

Stream Flow

According to StreamStats, the discharge point on Tributary 59207 of Rock Creek has a Q₇₋₁₀ of 0.015 cfs and a drainage area of 0.83 mi.², which results in a Q₇₋₁₀ low flow yield of 0.018 cfs/mi.².

However, since the drainage area at the discharge point is well below the minimum value recommended by StreamStats, the Q_{7-10} for the discharge point was determined by first finding the Q_{7-10} for a larger drainage area downstream of the discharge point. The drainage area just downstream of the confluence of UNT 59207 with UNT 59195 was chosen as a proper representative watershed of large enough size for accurate regression analysis. According to StreamStats, this point has a Q_{7-10} of 0.15 cfs and a drainage area of 5.1 mi.², which results in a low flow yield of 0.029 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):

Low Flow Yield = 0.15 cfs / 5.1 mi.² = 0.029 cfs/mi.² $Q_{7-10} = 0.029 cfs/mi.^2 * 0.83 mi.^2 = 0.024 cfs$ $Q_{30-10} = 1.36 * 0.024 cfs = 0.033 cfs$ $Q_{1-10} = 0.64 * 0.024 cfs = 0.015 cfs$

The resulting Q7-10 dilution ratio is: Qstream / Qdischarge = 0.024 cfs / [0.270 MGD * (1.547 cfs/MGD)] = 0.057:1

Tributary 59207 of Rock Creek

25 Pa. Code § 93.9z classifies Tributary 59207 of Rock Creek as warm water fishes (WWF) surface water. Based on the 2020 Integrated Report, Rock Creek, assessment unit ID 10625, is not impaired. A TMDL currently does not exist for this stream segment, therefore, no TMDL has been taken into consideration during this review.

NPDES Permit Fact Sheet Amblebrook WWTP Public Water Supply

The nearest downstream public water supply intake is the City of Frederick intake on the Monocacy River, approximately 47.0 miles downstream of this discharge. Considering distance and dilution, the discharge is not expected to impact the water supply.

| | Tre | eatment Facility Summar | 'Y | |
|-----------------------------|-------------------------------|---|---------------------|--------------------------|
| reatment Facility Na | me: Amblebrook WWTP | | | |
| WQM Permit No. | Issuance Date | | | |
| 0117401 | 1/18/2018 | | | |
| 0117401 T-1 | 6/1/2020 | | | |
| 0117401 T-2 | 11/19/2020 | | | |
| | | | 1 | |
| Waste Type | Degree of Treatment | Process Type | Disinfection | Avg Annual Flow (MGD) |
| Sewage | Tertiary | Activated Sludge With Solids Removal | Ultraviolet | 0.27 |
| ~ | · · · | | | |
| | | | | <u> </u> |
| lydraulic Capacity (MGD) | Organic Capacity (Ibs/day) | Load Status | Biosolids Treatment | Biosolids Use/Disposa |
| 0.27 | | Not Overloaded | | |

Changes Since Last Permit Issuance:

The WWTP train is proposed to be configured as follows:

Influent Screening (1) \Rightarrow Equalization Tank (1) \Rightarrow Anoxic Zone (2) \Rightarrow Aeration Tank (2) \Rightarrow Clarifier (2) \Rightarrow UV Disinfection Unit (1) \Rightarrow Post Aeration Unit (1) \Rightarrow Discharge

Chemicals use Poly-aluminum chloride for phosphorus removal and coagulation, and soda ash solution to increase alkalinity.

| Compliance History | | |
|-------------------------|---|--|
| Summary of DMRs: | No DMRs have been received since the facility had complete construction on 4/20/2022 and began operation on 5/4/2022 (<i>this fact sheet, pages 12 & 13</i>). | |
| Summary of Inspections: | 3/31/2022, Mr. Bettinger & Mr. Hoy, DEP WQS & WQT, conducted a routine partial inspection. There were no violations noted during inspection. On-site inspection observations revealed that the plant is still in construction phase. Observations included the treatment tanks, main influent pump station, operations building, and pump/haul station. Significant progress has been achieved toward the construction of the facility since the previous Department inspection which occurred on 3/26/2021. Mr. Wheeler stated that the facility is continuing to operate under pump and haul guidelines that were set forth by the Department. According to Mr. Wheeler, Smith's Sanitary Septic Service is currently hauling approximately 10 loads per week from the site. Mr. Wheeler estimated that the treatment facility will begin operation on April 18 th , 2022. | |
| | 8/3/2021, Mr. Bettinger, DEP WQS, conducted compliance evaluation inspection. There were no violations identified during inspection. The facility is presently set up to operate under the pump and haul provision that was approved by the PA DEP. While on site, DEP inspector confirmed that the treatment plant is not receiving any influent. | |
| | 3/26/2021, Mr. Bettinger, DEP WQS, conducted a routine partial inspection. There were no violations noted during inspection. The facility is partially constructed and currently in use under a pump and haul provision that was issued as a letter on 2/14/2020. There were recommendations such as ensure monthly pump and haul reports are submitted to the Department as required by the pump and haul agreement that was issued by the Department on 2/14/2020. | |
| | 11/19/2019, Mr. Bettinger, DEP WQ Environmental Trainee, conducted routine inspection. There were no violations identified during inspection. A site visit was conducted to determine if facility has been constructed. Construction for the Gettysburg Commons is in progress. Physical construction of the sewage treatment plant has begun and the SBR tanks are in place. | |
| Other Comments: | There are no open violations against the facility or the permittee. | |

Other Comments:

Development of Effluent Limitations

| Outfall No. | 001 | | Design Flow (MGD) | 0.27 |
|---------------|---------------|-----------------|-------------------|-----------------|
| Latitude | 39° 52' 39.00 | " | Longitude | -77º 11' 18.00" |
| Wastewater De | escription: | 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) |
| 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) |
| рН | 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: Total residual chlorine does not apply to this facility.

Water Quality-Based Limitations

Ammonia (NH₃-N):

NH₃-N calculations were 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 computer model of the stream:

| ٠ | Discharge pH | 7.0 | (Default per 391-2000-007) |
|---|-------------------------------|--------|------------------------------------|
| ٠ | Discharge Temperature | 25°C | (Default per 391-2000-007) |
| ٠ | Stream pH | 7.0 | (Default per 391-2000-006) |
| ٠ | Stream Temperature | 25°C | (Default for WWF per 391-2000-003) |
| ٠ | Background NH ₃ -N | 0 mg/L | (Assumed since no upstream WWTPs) |

The model input data and results are attached. The printout of the WQM 7.0 model (ver. 1.1) output indicates that at a discharge of 0.270 MGD, limits (rounded according to the NPDES Technical Guidance No. 362-0400-001) of 1.47 mg/L NH₃-N as a monthly average and 2.94 mg/L NH₃-N instantaneous maximum are necessary to protect the aquatic life from toxicity effects during the summer months. However, per anti-back-sliding requirements, the existing monthly average limit of 1.0 mg/L and 2.0 mg/L IMAX for summer more stringent and will remain in the proposed permit. The winter effluent limit will be set at three-times the summer limits.

It was agreed to during 2008 permit appeal settlement negotiations that any loading limits would be calculated using 0.300 MGD as the design flow. Mass limits are calculated as follows:

Summer average monthly mass limit: 1.0 mg/L x 0.300 MGD x 8.34 = 2.5 lbs/day Winter average monthly mass limit: 3.0 mg/L x 0.300 MGD x 8.34 = 7.5 lbs/day

Dissolved Oxygen (D.O.):

The D.O. goal is 6.0 mg/L. However, a minimum D.O. of 5.0 mg/L is required per 25 Pa. Code § 93.7. It is recommended that this limit be maintained in the proposed permit to ensure the protection of water quality standards. This approach is consistent with DEP's current Standard Operating Procedure (SOP) No. BPNPSM-PMT-033 and has been applied to other point source dischargers throughout the state.

Carbonaceous Biochemical Oxygen Demand (CBOD₅):

The attached computer printout of the WQM 7.0 stream model (ver. 1.1) indicates that the existing monthly average limit of 23.83 mg/L, or secondary treatment, is adequate to protect the water quality of the stream. However, per anti-backsliding requirements, the existing monthly average limit of 10.0 mg/L more stringent and will remain in place. This limit, which was agreed to during settlement negotiations in 2008, was placed in the permit due to water quality concerns related to the existing impairment of Rock Creek. Mass limits are calculated as follows:

Average monthly mass limit: 10.0 mg/L x 0.300 MGD x 8.34 = 25.0 lbs/day

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

E. Coli:

As recommended by DEP's SOP no. BPNPSM-PMT-033, a routine monitoring for E. Coli will be included in the proposed permit under 25 Pa. Code § 92a.61. This requirement applies to all sewage dischargers greater than 0.002 MGD in their new and reissued permits. A monitoring frequency of 1/guarter will be included in the permit to be consistent with the recommendation from this SOP.

pH:

The effluent discharge pH should remain above 6.0 and below 9.0 standard units according to 25 Pa. Code § 95.2(1).

UV:

The UV system monitor and report the UV intensity (mW/cm²) will remain in the proposed permit.

Total Suspended Solids (TSS):

The existing limits of 10.0 mg/L average monthly and 20.0 mg/L instantaneous maximum, which were agreed to during settlement negotiations, will remain in the permit based on water quality concerns related to the existing impairment of Rock Creek. Mass limits are calculated as follows:

Average monthly mass limit: 10.0 mg/L x 0.300 MGD x 8.34 = 25.0 lbs/day

Phosphorus:

The existing limits of 0.3 mg/L average monthly and 0.6 mg/L instantaneous maximum will remain in the proposed permit based on water quality concerns related to the existing impairment of Rock Creek. Mass limits are calculated as follows:

Average monthly mass limit: 0.3 mg/L x 0.300 MGD x 8.34 = 0.75 lbs/day

Toxics:

A review of the application and inspection reports shows that there are no toxics of concern in the effluent. Therefore, no modeling is required.

Stormwater:

There is no stormwater outfall associated with this facility.

Chesapeake Bay Strategy:

The protection report addendum from 2008 indicates that, although the approved design flow is 0.270 MGD, during settlement of the permittee's appeal of the permit termination, it was agreed that the nutrient loading limits would be calculated using 0.300 MGD as the design flow. It was also agreed that the concentration limits used to calculate the loadings would be 6.0 mg/L total nitrogen and 0.3 mg/L total phosphorus (based on the determination that these levels would not add to the existing impairment in Rock Creek). The annual loading limitations were calculated as follows:

> Total Nitrogen: 0.300 MGD x 6.0 mg/L x 8.34 x 365 days/year = 5,479 lbs/year Total Phosphorus: 0.300 MGD x 0.3 mg/L x 8.34 x 365 days/year = 274 lbs/year

This facility falls in Phase 4 of Pennsylvania's Chesapeake Bay Tributary Strategy Point Source Implementation Plan. Cap Loads were not assigned to this facility for the purposes the Chesapeake Bay Strategy since it was considered an existing facility at the time of plan implementation. However, per the COA that was issued on October 15, 2008, there are annual effluent limitations for both nitrogen and phosphorus that were applied due to the impairments for Rock Creek. The existing TN limit of 5,479 lbs/yr and TP limit of 274 lbs/yr will remain in the proposed permit.

Additionally, in the Phase 3 WIP wastewater Supplement, revised on September 13, 2021, attachment C-Non-Significant discharges with cap loads in NPDES permits of this document shows that Amblebrook Gettysburg (The York Water Co.) has been allocated 5,479 lbs/year of TN and 274 lbs/year of TP (*the fact sheet, page 12*).

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.

303(d) Listed Streams:

This discharge is not located on a 303(d) listed stream segment. However, 1.56 river miles downstream, Rock Creek is currently impaired for nutrients due to agriculture and a municipal point source. A TMDL has not yet been developed.

Class A Wild Trout Fisheries:

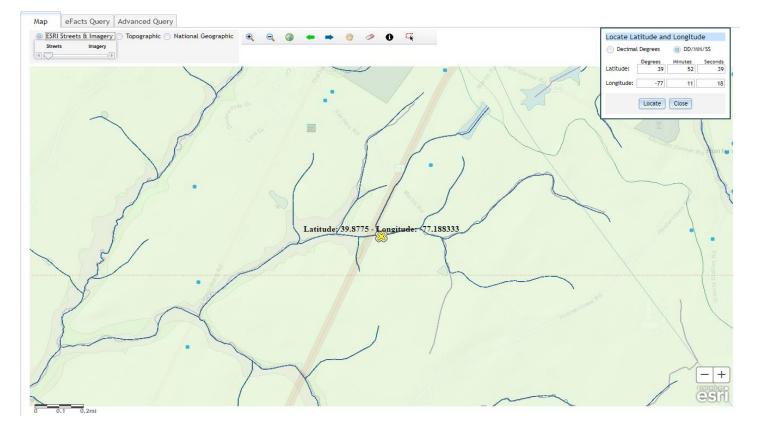
No Class A Wild Trout Fisheries are impacted by this discharge.

WQM 7.0 model input data:

D.O. Goal = 5.0 mg/L

| Node 1: | Outfall 001 on UNT F | Rock Creek (59207) |
|---------|------------------------|---|
| | Elevation: | 515 ft (USGS National Map Viewer) |
| | Drainage Area: | 0.83 mi. ² (USGS PA StreamStats) |
| | River Mile Index: | 0.88 (PA DEP eMapPA) |
| | Low Flow Yield: | 0.029 cfs/mi ² |
| | Discharge Flow: | 0.270 MGD |
| Node 2: | Just before confluence | ce of UNT 59207 with UNT 59195 |

| Node 2: | Just before confluence | ence of UNT 59207 with UNT 59195 | | |
|---------|------------------------|---|--|--|
| | Elevation: | 495 ft (USGS National Map Viewer) | | |
| | Drainage Area: | 1.61 mi. ² (USGS PA StreamStats) | | |
| | River Mile Index: | 0.001 (PA DEP eMapPA) | | |
| | Low Flow Yield: | 0.029 cfs/mi ² | | |
| | Discharge Flow: | 0.0 MGD | | |



NPDES Permit No. PA0247715

| StreamStats | Basin Characteristics | | | | | | | 🛤 Report 🛛 🚯 About |
|--|--|--|---|---|---|--|--|--|
| | Parameter Code | Parameter Description | | | Value Un | t | | |
| SELECT A STATE / REGION | DRNAREA | Area that drains to a point on a st | ream | | 0.83 squ | iare miles | | Layers |
| Pennsylvania 🖲 🗸 🛨 | PRECIP | Mean Annual Precipitation | | | 41 inc | hes | | |
| <u>x</u> | STRDEN | Stream Density total length of s | treams divi | ded by drainage area | 2.1 mil | es per square mile | | Base Maps |
| IDENTIFY A STUDY AREA Basin Delineated 😽 | ROCKDEP | Depth to rock | | | 4 fee | t | - | Application Laye |
| | CARBON | Percentage of area of carbonate r | ock | | 0 per | cent | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | Appreation Edge |
| SELECT SCENARIOS 🗸 | | | | | | | _ (| National Laye |
| | | | | | | | 1 | PA Map Laye |
| ILD A REPORT Report Built > | | Parameters [99.8 Percent (0.83 square mile | | - | | | 2 | |
| | Parameter Code | Parameter Name | Value | | Min Li | | | ~~~ |
| Step 1: You can modify computed basin characteristics here, then select the types of | DRNAREA | Drainage Area | 0.83 | square miles | 4.93 | 1280 | _ <u> </u> | |
| reports you wish to generate. Then click the | PRECIP | Mean Annual Precipitation | 41 | inches | 35 | 50.4 | 1 | |
| "Build Report" button | STRDEN | Stream Density | 2.1 | miles per square mile | 0.51 | 3.1 | | |
| | ROCKDEP | Depth to Rock | 4 | feet | 3.32 | 5.65 | 5 | |
| ✓ Show Basin Characteristics | CARBON | Percent Carbonate | 0 | percent | 0 | 99 | } | \sim |
| | Low-Flow Statistics D | Disclaimers [99.8 Percent (0.83 square mile | es) Low Flow F | Region 2] | | | ξ | <u>,</u> |
| ect available reports to display: | | | | - | | | | 1 |
| Basin Characteristics Report | One or more of the | e parameters is outside the suggested rai | nge. Estimate | s were extrapolated with unl | nown errors | | | |
| | Low-Flow Statistics F | low Report [99.8 Percent (0.83 square mile | es) Low Flow F | Region 2] | | | | |
| Scenario Flow Reports | Statistic | | | Value | | Unit | | } |
| Continue | 7 Day 2 Year Low | Flow | | 0.0453 | | ft^3/s | | 1 |
| 1 | 30 Day 2 Year Low | | | 0.0453 | | ft^3/s | | 5 |
| / | | | | 0.0151 | | ft^3/s | | |
| POWERED BY WIM | 7 Day 10 Year Lo | | | 0.0151 | | | | 1 |
| | 30 Day 10 Year L | UW FIOW | | 0.0234 | | ft^3/s | | 1 |
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| USGS Home Contact USGS Search USGS ccessibility FOIA Privacy Policy & Notices | 90 Day 10 Year L | ow Flow | H. See | | % | ft*3/s | eri. | Report O Abou |
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| cessibility FOLA Privacy Policy & Notices 30 30 31 31 32 32 33 33 33 34 35 35 StreamStats SELECT A STATE / REGION Pennsylvania 4 10 DENTIFY A STUDY AREA Basin Delineated ~ SELECT SCENARIOS ~ ILLD A REPORT Report Built > Step 1: You can modify computed basin | 90 Day 10 Year Li Low-Flow Statistics C Basin Characteristic: Parameter Code DRNAREA PRECIP STRDEN ROCKDEP CARBON | ow Flow itations Parameter Description Area that drains to a point on a s Mean Annual Precipitation Stream Density total length of Depth to rock Percentage of area of carbonate | streams div rock | 0.0439 | Value Ur 5.1 sq 41 in 2.37 m 4.4 fe | ft*3/s teaflet iit uare miles ches les per square mile et | traban | Layers Base Maps Application Lat |
| essibility FOIA Privacy Policy & Notices | 90 Day 10 Year Li Low-Flow Statistics C Basin Characteristic: Parameter Code DRNAREA PRECIP STRDEN ROCKDEP CARBON Low-Flow Statistics I | ow Flow itations Parameter Description Area that drains to a point on a s Mean Annual Precipitation Stream Density total length of Depth to rock Percentage of area of carbonate Parameters [99.9 Percent (5.1 square mile | streams div rock s) Low Flow R | 0.0439 | Value Ur 5.1 sq 41 in 2.37 mi 4.4 fe 0 pe | ft*3/s teaflet it uare miles ches les per square mile et rcent | traban | Layers Base Maps Application La |
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| essibility FOLA Privacy Policy & Notices 30 310 Image: Stream Stats SELECT A STATE / REGION Pennsylvania • ~ DENTIFY A STUDY AREA Basin Delineated ~ SELECT SCENARIOS ~ SELECT SCENARIOS ~ SELECT SCENARIOS ~ SELECT SCENARIOS ~ Step 1: You can modify computed basin characteristics here, then select the types of reports you win to generate. Then click the "Build Report" button Show Basin Characteristics ect available reports to display: * Basin Characteristics Report * Basin Characteristics Report * Scenario Flow Reports | 90 Day 10 Year Li Low-Flow Statistics C Basin Characteristic: Parameter Code DRNAREA PRECIP STRDEN ROCKDEP CARBON Low-Flow Statistics I Parameter Code DRNAREA PRECIP STRDEN ROCKDEP CARBON Low-Flow Statistics I PI: Prediction Int Error (other see Statistic | ow Flow itations itations Parameter Description Area that drains to a point on a s Mean Annual Precipitation Stream Density total length of Depth to rock Percentage of area of carbonate Parameter Name Drainage Area Mean Annual Precipitation Stream Density Depth to Rock Percent Carbonate Flow Report [99.9 Percent (5.1 square mile terval-Lower, Plu: Prediction Intervale terval-Lower, Plu: Prediction Intervale | s) Low Flow R s) Low Flow R 5.1 41 2.37 4.4 0 s) Low Flow F s) Low Flow F N V | 0.0439 | Value Ur 5.1 Sq 41 Inv 2.37 mi 4.4 fe 0 pe Min L 4.93 35 0.51 3.32 0 ror of Predict 0 | ft*3/s Leaflet iit uare miles ches les per square mile et rcent iimit 1280 50.4 3.1 5.65 99 tion, SE: Standard ASEp | traban | Layers Base Maps Application Lay |
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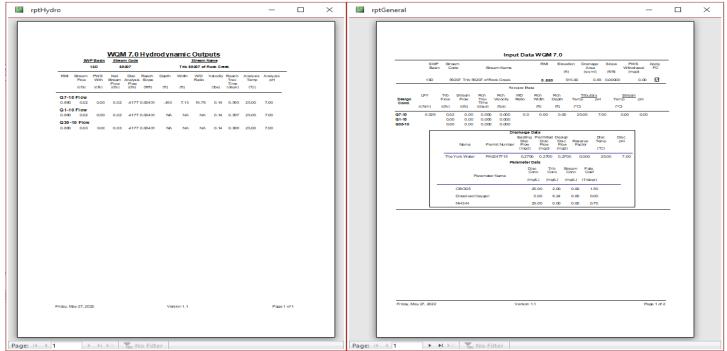
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| | Parameter Code | Parameter Description | | | Value Ur | nit | |
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| | DRNAREA | Area that drains to a point on a s | stream | | | uare miles | Layers |
| Pennsylvania 🛚 🗸 | + PRECIP | Mean Annual Precipitation | | | | ches | |
| | STRDEN | Stream Density total length of | streams div | ided by drainage area | | iles per square mile | Base Map |
| IDENTIFY A STUDY AREA Basin Delineated 🗸 | ROCKDEP | Depth to rock | | | 4 fe | | Application La |
| | CARBON | Percentage of area of carbonate | rock | | 0 pe | ercent | |
| | 1 | | | | | | National La |
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| | Low-Flow Statistics F | Parameters [99.9 Percent (1.61 square mi | iles) Low Flow I | Region 2] | | | |
| step 1: You can modify computed basin | Parameter Code | Parameter Name | Value | Units | Min L | imit Max Limit | |
| haracteristics here, then select the types of | DRNAREA | Drainage Area | 1.61 | square miles | 4.93 | 1280 | |
| eports you wish to generate. Then click the Build Report" button | PRECIP | Mean Annual Precipitation | 41 | inches | 35 | 50.4 | |
| | STRDEN | Stream Density | 2.13 | miles per square mile | 0.51 | 3.1 | X |
| ✓ Show Basin Characteristics | ROCKDEP | Depth to Rock | 4 | feet | 3.32 | 5.65 | |
| | CARBON | Percent Carbonate | 0 | percent | 0 | 99 | |
| available reports to display: | Low-Flow Statistics | Disclaimers [99.9 Percent (1.61 square mi | iles) Low Flow | Region 2] | | | |
| | Day of the | e parameters is outside the suggested n | anna Selimet | is were extrapolated with | known orrest | | 1 hours |
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| | 7 Day 2 Year Low | Flow | | 0.0929 | | ft^3/s | |
| | 30 Day 2 Year Lo | w Flow | | 0.139 | | ft^3/s | |
| POWERED BY WIM | 7 Day 10 Year Lo | w Flow | | 0.0322 | | ft^3/s | 1 . 2 |
| | Zo 30 Day 10 Year L | ow Flow | | 0.0492 | | ft^3/s | Y |
| Home Contact USGS Search USGS bility FOIA Privacy Policy & Notices | La 90 Day 10 Year L | ow Flow | | 0.0907 | | ft^3/s | are the second |
| | | | | | • | r/0 | — [] |
| Hydrodynamics | NH3-N Allocat | ions D.O. Alloca | ations | D.O. Simu | ulation | Effluent | - Limitations |
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| WQM 7.0 Effluent Limits WVP Basin 100 69207 Teb 69207 of Rosk Creak | | | | WQM 7.0 Wasteload Allocations <u>strem Code</u> Stream Rande 130 6507 Trib Stream Factor of Rook Creek. | |
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| Firlday, May 27, 2022 Version 1.1 | Page 1 of | 1 | | Fitaly, May 27, 2022 Version 1.1 Page 1 of 1 | |
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NPDES Permit No. PA0247715



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| Input Data WQM 7.0 SWP Stream RM Elevation Drainage Slope PWS Apply | | |
| Basin Code Stream Name Anea Withdrawal FC (ft) (sigimi) (ft/ft) (mgd) | | |
| 13D 59207 Trib 59207 of Rock Creek 0.001 495.00 1.61 0.00000 0.00 2 | | |
| LFY Trib Stream Rich Rich WD Rich Rich <u>Tributary Stream</u> Design Flow Flow Trav Velocity Ratio Wildth Depth Temp pH Temp pH Cond. Time (cfsm) (cfs) (cfays) (fps) (ft) (ft) (°C) (°C) | | |
| Q7-10 0.029 0.00 0.000 0.00 0.0 0.00 25.00 7.00 0.00 0.00 Q1-10 0.00 0.000 0.000 0.000 0.000 0.000 25.00 7.00 0.00 0.00 Q30-10 0.00 0.000 | | |
| Discharge Data Edding Permitted Design Disc Disc Disc Disc Disc Resorve Temp pH Name Permit Number Row Flow Row Factor (mgd) (mgd) (mgd) (mgd) (mgd) | | |
| The York Water PA0247715 0.0000 0.0000 0.0000 25.00 7.00 Parameter Data | | |
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| CBOD5 25.00 2.00 0.00 1.50 Dissolved Oxygen 5.00 8.24 0.00 0.00 NH3-N 25.00 0.00 0.00 0.70 | | |
| Friday, May 27, 2022 Version 1.1 Page 2 of 2 | - | |
| Page: I4 4 2 | | |

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Wed 5/4/2022 12:45 PM

Phase 3 WIP Wastewater Supplement Revised, September 13, 2021

| NPDES Permit No. | Facility | Latest Permit Issuance Date | Permit Expiration Date | Cap Load Compliance Start Date | TN Cap Load (Ibs/yr) | TP Cap Load (Ibs/yr) | TN Delivery Ratio | TP Delivery Ratio |
|---------------------|---|-----------------------------------|------------------------------|--------------------------------------|----------------------------|----------------------------|-------------------------|-------------------------|
| PA0234028 | WETLAND EXT PROJ | 5/22/2019 | 5/31/2024 | 10/1/2013 | 0 | 0 | 0.930 | 0.436 |
| PA0247715 | AMBLEBROOK GETTYSBURG | 11/19/2020 | 5/31/2022 | 01/01/2009 | 5479 | 274 | 0.951 | 0.436 |
| PA0248029 | HUSTONTOWN STP | 7/16/2020 | 7/31/2025 | 2/1/2013 | 682 | 85 | 0.749 | 0.670 |
| PA0248061 | JEFFERSON CODORUS STP | 9/21/2020 | 9/30/2025 | 10/1/2013 | 6,624 | 828 | 0.951 | 0.436 |
| PA0260738 | NITTERHOUSE CONCRETE PRECAST PLT | 11/22/2017 | 11/30/2022 | 10/1/2017 | 0 | 0 | 0.683 | 0.670 |
| PA0261131 | TAMARACK MHP | 3/1/2019 | 2/29/2024 | 10/1/2008 | 1,260 | 0 | 0.683 | 0.670 |
| PA0261343 | JOSHUA HILL STP | 7/21/2015 | 7/31/2020 | 8/1/2015 | 0 | 0 | 0.700 | 0.436 |
| PA0261378 | SHEETZ CLARKS FERRY | 11/22/2016 | 11/30/2021 | 10/1/2013 | 38 | 3.8 | 0.961 | 0.436 |
| PA0261416 | READING TWP LAUCHMANS BOTTOM STP | 1/12/2018 | 1/31/2023 | 12/1/2011 | 0 | 0 | 0.951 | 0.436 |
| PA0261572 | MT HOPE NAZARENE RETIREMENT COMM | 1/23/2020 | 1/31/2025 | 10/1/2011 | 605 | 0 | 0.897 | 0.436 |
| PA0261645 | HERITAGE HOUSE WHITE SULPHUR SPRINGS | 11/17/2017 | 11/30/2022 | 10/1/2011 | 380 | 0 | 0.627 | 0.670 |
| PA0261661 | COMFORT INN WASTEWATER | 3/26/2020 | 3/31/2025 | 10/1/2012 | 181 | 0 | 0.961 | 0.436 |
| PA0261718 | WINTER GREENES HOMEOWNERS ASSOCIATION | 10/26/2018 | 10/31/2023 | 7/1/2012 | 0 | 0 | 0.683 | 0.670 |
| PA0262072 | KNOUSE FOODS PEACH GLEN FRUIT PROC FAC | 4/20/2016 | 4/30/2021 | 5/1/2016 | 0 | 0 | 0.961 | 0.436 |
| PA0262137 | LOG CABIN MHP STP | 9/15/2015 | 9/30/2020 | 10/1/2015 | 0 | 0 | 0.891 | 0.436 |
| PA0263711 | BENEZETTE WWTP | 4/17/2018 | 4/30/2023 | 10/1/2012 | 0 | 0 | 0.871 | 0.436 |
| PA0266086 | SPRING GROVE STP | 9/23/2015 | 9/30/2020 | 10/1/2015 | 7,306 | 974 | 0.961 | 0.436 |
| PA0266663 | GETTYSBURG BATTLEFIELD RESORT STP | 6/21/2018 | 6/30/2023 | 10/1/2018 | 0 | 0 | 0.627 | 0.670 |
| PA0276073 | LAKE CAREY WWTP | 7/19/2018 | 7/31/2023 | 10/1/2018 | 0 | 0 | 0.733 | 0.436 |
| PA0247910 | BETHEL TOWNSHIP FRYSTOWN STP | 5/24/2021 | 7/31/2024 | 6/1/2021 | 8,045 | 188 | 0.961 | 0.436 |

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| © Ignore ∭ — ∧Junk ~ Delete Archive | Reply Forward All | Image: Image | ~ | Move | Mark Categorize Follow Unread × Up × | ✓ Find Franslated → ✓ Select → | A)) _{Read} Aloud | Zoom | Share to Teams | Vīva Insights | |
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RE: [External] Amblebrook WWTP: NPDES PA0247715 A-2; WQM 0117401 T-2

○ Mark Snyder <marks@yorkwater.com> To ❷ Bebenek, Maria; ● Martin, Daniel; ❷ Le, Hilary

Good morning,

Mixed liquor was delivered to the Amblebrook WWTP on May 2nd and placed into the anoxic and aerobic tanks of one treatment train. Influent wastewater was then directed to the treatment train.

Treated effluent began discharging from the facility today.

Thanks, Mark

Mark S. Snyder, P.E. Vice President – Engineering The York Water Company 130 E. Market St. York, PA 17401

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From: Mark Snyder Sent: Wednesday, April 20, 2022 2:32 PM To: Bebenek, Maria <<u>mbebenek@pa.gov</u>>; Martin, Daniel <<u>daniemarti@pa.gov</u>>; <u>hle@pa.gov</u> Subject: RE: [External] Amblebrook WWTP: NPDES PA0247715 A-2; WQM 0117401 T-2

Good Afternoon,

Attached is a completed WQM Post Construction Certification form for the first phase of the Amblebrook Wastewater Treatment Plant. Photos of the facility are also attached.

The contractor is currently testing equipment, including the electrical, controls, & monitoring system components.

We are still tentatively scheduled to receive mixed liquor next week to begin the start-up process.

Due to production delays, the emergency generator will not be shipped until July. Until then, we have access to a portable generator if needed during an extended power outage. If warranted, we could also have wastewater hauled offsite, as has been done during the current pump-and-haul operation.

Thanks again, Mark

Mark S. Snyder, P.E. Vice President – Engineering The York Water Company 130 E. Market St. York, PA 17401

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Existing Effluent Limitations and Monitoring Requirements

| | | | Effluent L | imitations | | | Monitoring Re | quirements |
|---|--------------------|----------------------------|------------|--------------------|------------------------|---------------------|--------------------------|-------------------|
| Parameter | Mass Units | ; (lbs/day) ⁽¹⁾ | | Concentrat | Minimum ⁽²⁾ | Required | | |
| Farameter | Average Monthly | Daily Maximum | Minimum | Average Monthly | Maximum | Instant. Maximum | Measurement Frequency | Sample Type |
| Flow (MGD) | Report | Report | xxx | xxx | xxx | xxx | Continuous | Measured |
| pH (S.U.) | ххх | XXX | 6.0 | xxx | 9.0 | ххх | 1/day | Grab |
| D.O. | ххх | xxx | 5.0 | XXX | XXX | xxx | 1/day | Grab |
| UV Intensity (mW/cm ²) | XXX | XXX | Report | xxx | XXX | XXX | 1/day | Recorded |
| CBOD₅ | 25 | XXX | xxx | 10.0 | xxx | 20.0 | 1/week | 8-Hr Composite |
| TSS | 25 | xxx | XXX | 10.0 | XXX | 20.0 | 1/week | 8-Hr Composite |
| Fecal Coliform (CFU/100 ml) May 1 - Sep 30 | XXX | xxx | xxx | 200 Geo Mean | xxx | 1,000 | 1/week | Grab |
| Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30 | ххх | xxx | xxx | 2,000 Geo Mean | XXX | 10,000 | 1/week | Grab |
| Ammonia May 1 - Oct 31 | 2.5 | xxx | XXX | 1.0 | XXX | 2.0 | 2/week | 8-Hr Composite |
| Ammonia Nov 1 - Apr 30 | 7.5 | xxx | xxx | 3.0 | xxx | 6.0 | 2/week | 8-Hr Composite |
| Total Phosphorus | 0.75 | xxx | xxx | 0.3 | xxx | 0.6 | 2/week | 8-Hr Composite |

Existing Effluent Limitations and Monitoring Requirements

Chesapeake Bay Requirements

| | | | Effluent L | imitations | | | Monitoring Re | quirements | |
|----------------------|------------|--------------------------|------------|--------------------|--------------|---------------------|--------------------------|-------------------|--|
| Parameter | Mass Units | (lbs/day) ⁽¹⁾ | | Concentrat | tions (mg/L) | | Minimum ⁽²⁾ | Required | |
| Farameter | Monthly | Annual | Monthly | Monthly Average | Maximum | Instant. Maximum | Measurement Frequency | Sample Type | |
| AmmoniaN | Report | Report | XXX | Report | XXX | XXX | 2/week | 8-Hr Composite | |
| Kjeldahl—N | Report | XXX | XXX | Report | XXX | XXX | 2/week | 8-Hr Composite | |
| Nitrate-Nitrite as N | Report | XXX | XXX | Report | XXX | XXX | 2/week | 8-Hr Composite | |
| Total Nitrogen | Report | Report | xxx | Report | XXX | XXX | 1/month | Calculation | |
| Total Phosphorus | Report | Report | xxx | Report | xxx | xxx | 2/week | 8-Hr Composite | |
| Net Total Nitrogen | Report | 5,479 | XXX | XXX | XXX | XXX | 1/month | Calculation | |
| Net Total Phosphorus | Report | 274 | xxx | xxx | xxx | xxx | 1/month | Calculation | |

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 L | imitations | | | Monitoring Re | quirements |
|---|--------------------|----------------------------|------------|--------------------|-------------|---------------------|--------------------------|-------------------|
| Parameter | Mass Units | ; (lbs/day) ⁽¹⁾ | | Concentrat | ions (mg/L) | | Minimum ⁽²⁾ | Required |
| Farameter | Average Monthly | Daily Maximum | Minimum | Average Monthly | Maximum | Instant. Maximum | Measurement Frequency | Sample Type |
| Flow (MGD) | Report | Report | xxx | xxx | XXX | xxx | Continuous | Measured |
| _pH (S.U.) | ххх | xxx | 6.0 | XXX | 9.0 | ххх | 1/day | Grab |
| D.O. | XXX | XXX | 5.0 | XXX | XXX | ххх | 1/day | Grab |
| UV Intensity (mW/cm ²) | XXX | XXX | Report | XXX | XXX | ххх | 1/day | Recorded |
| CBOD₅ | 25 | xxx | xxx | 10.0 | XXX | 20.0 | 1/week | 8-Hr Composite |
| TSS | 25 | xxx | xxx | 10.0 | xxx | 20.0 | 1/week | 8-Hr Composite |
| Fecal Coliform (No./100 ml) May 1 - Sep 30 | ххх | xxx | xxx | 200 Geo Mean | xxx | 1,000 | 1/week | Grab |
| Fecal Coliform (No./100 ml) Oct 1 - Apr 30 | ххх | xxx | XXX | 2,000 Geo Mean | XXX | 10,000 | 1/week | Grab |
| E. Coli (No./100 ml) | ХХХ | XXX | XXX | XXX | XXX | Report | 1/quarter | Grab |
| Ammonia May 1 - Oct 31 | 2.5 | xxx | XXX | 1.0 | XXX | 2.0 | 2/week | 8-Hr Composite |
| Ammonia Nov 1 - Apr 30 | 7.5 | xxx | xxx | 3.0 | XXX | 6.0 | 2/week | 8-Hr Composite |
| Total Phosphorus | 0.75 | xxx | XXX | 0.3 | XXX | 0.6 | 2/week | 8-Hr Composite |

Compliance Sampling Location:

Other Comments:

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 Chesapeake Bay requirements, Effective Period: Permit Effective Date through Permit Expiration Date.

| | | | Effluent L | imitations | | | Monitoring Re | quirements |
|----------------------|------------|--------------------------|------------|--------------------|--------------|---------------------|--------------------------|----------------|
| Parameter | Mass Units | (lbs/day) ⁽¹⁾ | | Concentrat | tions (mg/L) | | Minimum ⁽²⁾ | Required |
| Farameter | Monthly | Annual | Monthly | Monthly Average | Maximum | Instant. Maximum | Measurement Frequency | Sample Type |
| | | | | | | | | 8-Hr |
| AmmoniaN | Report | Report | XXX | Report | XXX | XXX | 2/week | Composite |
| | | | | | | | | 8-Hr |
| Kjeldahl—N | Report | XXX | XXX | Report | XXX | XXX | 2/week | Composite |
| | | | | | | | | 8-Hr |
| Nitrate-Nitrite as N | Report | XXX | XXX | Report | XXX | XXX | 2/week | Composite |
| Total Nitrogen | Report | Report | xxx | Report | XXX | XXX | 1/month | Calculation |
| | | - | | | | | | 8-Hr |
| Total Phosphorus | Report | Report | XXX | Report | XXX | XXX | 2/week | Composite |
| Net Total Nitrogen | Report | 5,479 | XXX | XXX | XXX | xxx | 1/month | Calculation |
| Net Total Phosphorus | Report | 274 | XXX | XXX | XXX | XXX | 1/month | Calculation |

Compliance Sampling Location:

Other Comments:

| | Tools and References Used to Develop Permit |
|-------------|--|
| | WQM for Windows Model (see Attachment |
| | Toxics Management Spreadsheet (see Attachment) |
| | TRC Model Spreadsheet (see Attachment) |
| | Temperature Model 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. |
| \boxtimes | 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. |
| \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. |
| \boxtimes | 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. |
| \square | 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. |
| \boxtimes | 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. |
| \boxtimes | Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07. |
| \boxtimes | SOP: BCW-PMT-033 |
| | Other: |