

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.0004
Latitude	40° 27' 37.18"	Longitude	-78° 5' 18.27"
Quad Name	Huntingdon	Quad Code	
Wastewater Description: Sewage Effluent			
Receiving Waters	Crooked Creek (WWF)	Stream Code	15508
NHD Com ID	65607794	RMI	6.37 miles
Drainage Area	8.9 mi. ²	Yield (cfs/mi ²)	0.04
Q ₇₋₁₀ Flow (cfs)	0.35	Q ₇₋₁₀ Basis	USGS StreamStats
Elevation (ft)	695.4	Slope (ft/ft)	
Watershed No.	11-B	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	Mifflintown Borough Municipal Authority, Juniata County		
PWS Waters	Juniata River	Flow at Intake (cfs)	
PWS RMI	37 miles	Distance from Outfall (mi)	Approximate 63 miles

Changes Since Last Permit Issuance: none

Drainage Area:

The discharge is to Crooked Creek at RMI 6.37 miles. A drainage area at the point of discharge is estimated to be 8.9 square miles according to USGS StreamStats available at <https://streamstats.usgs.gov/ss/>.

Streamflow:

USGS StreamStats was produce a Q7-10 flow of 0.35 cfs at the point of discharge.

Crooked Creek:

Under 25 Pa Code § 93.9n, Crooked Creek is designated as warm water and migratory fishes. No special protection water(s) is impacted by this discharge. No Class A Wild Trout fishery is impacted by this discharge.

Public Water Supply Intake:

The fact sheet prepared for the renewal permit indicated that the nearest downstream public water supply intake is Mifflintown Borough Municipal Authority, Juniata County located on Juniata River, approximately 63 miles from the discharge. Considering dilution, the discharge is not expected to impact the water supply.

Compliance History	
Summary of DMRs:	No Annual Maintenance Reports (AMRs) have been consistently submitted to DEP.
Summary of Inspections:	Last DEP inspection was on 10/18/2019. There was no violation during inspection. The recommendations were: conduct effluent chlorine test quarterly, test effluent for TSS, CBOD ₅ and Fecal Coliform yearly, inspect the treatment system at least yearly, and submit an annual maintenance report to the Department by June 30 th of each year. The lab results with application on July 17, 2019 were 25 mg/L of CBOD ₅ , 30 mg/L of TSS, 0.9 mg/L of TRC, 7.1 S.U. of pH, and 83 No./100 ml of Fecal coliform. These results indicated compliance with the permit limits, except CBOD ₅ & TSS.

Treatment Facility Summary

The treatment system consists of a two-compartment 1000-gallon septic tank, effluent filter, an Ecoflow Peat filter and a 200-gallon chlorine contact tank disinfection, and outfall. The WQM No. 3108403 was issued on 3/4/2009.

Development of Effluent Limitations and Monitoring Requirements

The reviewer notes that the existing CBOD₅, and TSS monitoring frequencies and limits are consistent with the monitoring frequencies and limits recommended in DEP SOP No. BPNPSM-PMT-003 for SFTFs revised on May 17, 2019. The monitoring frequencies and limits from the previous permit will remain in the proposed permit.

pH is no longer a parameter of concern for SFTFs, so the pH monitoring requirement in the previous permit has been eliminated.

The "TRC Spreadsheet" will be not used to determine TRC limits for SRSTPs. Quarterly monitoring for TRC will remain in the proposed permit.

For Flow, it is not necessary to perform daily maximum monitoring since the treated effluent is less than 2,000 GPD. The permit included a non-seasonal fecal coliform limit of 200 / 100 mL which is more stringent than the seasonal fecal limits (200 / 100 mL for summer; and 10,000 / 100 mL for winter). The reviewer notes that the frequency of sampling for Flow, and Fecal Coliform are recommended to remain the same as the existing permit.

Chesapeake Bay Requirements

No nutrient monitoring requirement is recommended for this facility. Facilities that are designed based on a flow of less than or equal to 2,000 GPD or considered as SRSTPs are exempt from the Bay requirements.

Total Maximum Daily Load (TMDL)

The discharge is located in a stream segment listed as attaining uses; therefore, no TMDL has been taken into consideration during this review.

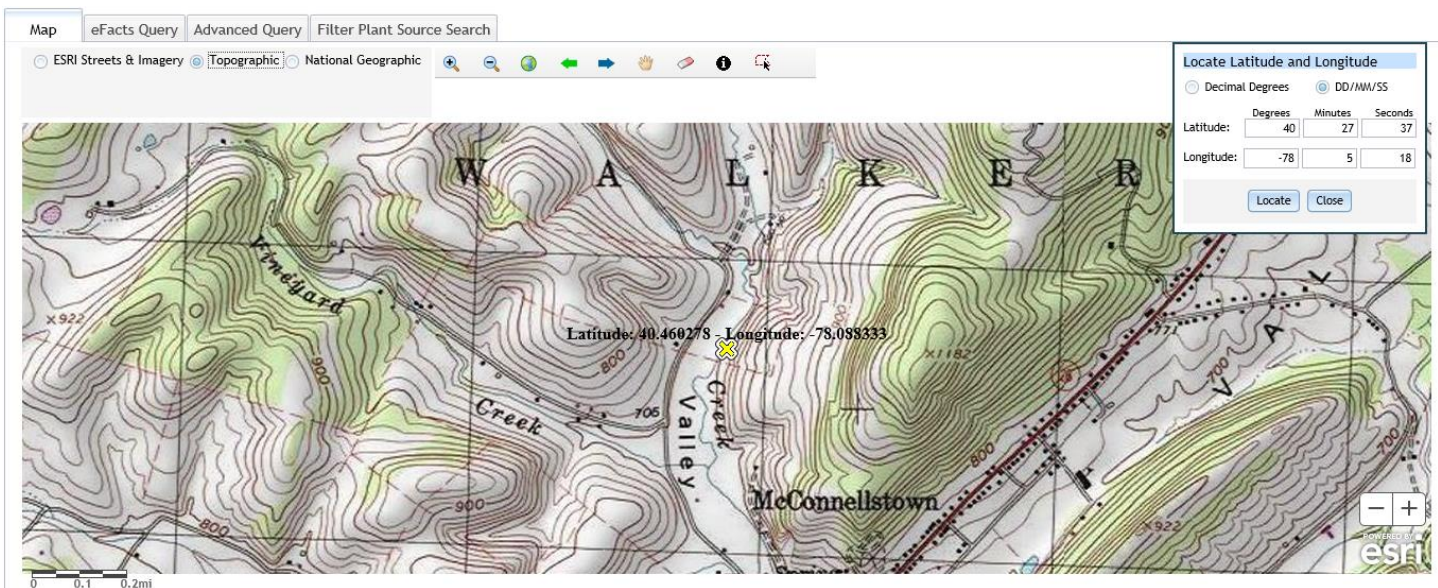
Antidegradation Requirements

All effluent limitations and monitoring requirements 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.

Other Considerations

No Class A Wild Trout Fishery is impacted by this discharge. Considering dilution and distance from the intake, the discharge is not expected to affect the water supply.

This is a topographic.



The screenshot displays the USGS StreamStats web application interface. On the left, a sidebar contains navigation and report-building options. The main content area is divided into two sections: 'Low-Flow Statistics Parameters' and 'Low-Flow Statistics Flow Report'. The flow report section includes a table of statistics and a citation for Stuckey, M.H. (2006). A map on the right shows the geographic context of the data.

USGS StreamStats

BUILD A REPORT Report Built

Step 1: You can modify computed basin characteristics here, then select the types of reports you wish to generate. Then click the "Build Report" button.

Show Basin Characteristics

Select available reports to display:

- Basin Characteristics Report
- Scenario Flow Reports

Continue

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Low-Flow Statistics Parameters¹_{Low Flow Region 2}

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	8.9	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	39	inches	35	50.4
STRDEN	Stream Density	2.15	miles per square mile	0.51	3.1
ROCKDEP	Depth to Rock	4.2	feet	3.32	5.65
CARBON	Percent Carbonate	30	percent	0	99

Low-Flow Statistics Flow Report¹_{Low Flow Region 2}

PII: Prediction Interval-Lower, PIU: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	SEp
7 Day 2 Year Low Flow	0.8	ft ³ /s	38	38
30 Day 2 Year Low Flow	1.08	ft ³ /s	33	33
7 Day 10 Year Low Flow	0.352	ft ³ /s	51	51
30 Day 10 Year Low Flow	0.486	ft ³ /s	46	46
90 Day 10 Year Low Flow	0.745	ft ³ /s	36	36

Low-Flow Statistics Citations

[Stuckey, M.H., 2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p.](#)

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the

Report About Help

Layers

- Base Maps
- Application Layers
- PA Map Layers
- National Layers

Smithfield Twp Huntingdon

Junata Twp

Leaflet

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	Average Weekly	Minimum	Annual Average	Maximum	Instant. Maximum		
Flow (MGD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	Upon Request	I-S
TRC	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	Grab
CBOD ₅	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
Fecal Coliform (CFU/100 ml)	XXX	XXX	XXX	200	XXX	XXX	1/year	Grab

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	Annual Average	Maximum	Instant. Maximum		
Flow (MGD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
TRC	XXX	XXX	XXX	Report Avg Mo	XXX	XXX	1/month	Grab
CBOD ₅	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	XXX	1/year	Grab