Pennsylvania Department of Environmental Protection

Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0110680**
Facility Type	**Industrial**	APS ID	**1128153**
Major / Minor	**Minor**	Authorization ID	**1510912**

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Applicant and Facility Information

Applicant Name	**Wood-Mode LLC**	Facility Name	**Wood-Mode LLC**
Applicant Address	1 2nd Street	Facility Address	1 2nd Street
	Kreamer, PA 17833-5000		Kreamer, PA 17833-5000
Applicant Contact	Julie Aitkins	Facility Contact	Julie Aitkins
Applicant Phone	(570) 374-2711	Facility Phone	(570) 374-2711
Client ID	351282	Site ID	2760
SIC Code	2434	Municipality	Middlecreek Township
SIC Description	Manufacturing - Wood Kitchen Cabinets	County	Snyder
Date Application Received	December 23, 2024	EPA Waived?	Yes
Date Application Accepted	December 31, 2024	If No, Reason	

Purpose of Application: Renewal of an existing NPDES permit for the discharge of industrial wastewater and stormwater.

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-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.

Approve	Deny	Signatures	Date
X		Derek S. Garner / Project Manager	February 2, 2025
X		Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	February 3, 2025

Discharge, Receiving Waters and Water Supply Information

Outfall No.	**001**	Design Flow (MGD)	0.00121
Latitude	40º 48' 18.58"	Longitude	-76º 57' 40.02"
Quad Name	Freeburg	Quad Code	1230
Wastewater Description:	Boiler blowdown		
Receiving Waters	Middle Creek	Stream Code	17701
NHD Com ID	54965497	RMI	7.55
Drainage Area (mi^2)	151	Yield (cfs/mi^2)	0.115
Q_{7-10} Flow (cfs)	17.4 (1)	Q_{7-10} Basis	Streamgage No. 01554000
Elevation (ft)	459	Slope (ft/ft)	0.0008
Watershed No.	6-A	Chapter 93 Class.	TSF
Existing Use	n/a	Existing Use Qualifier	n/a
Exceptions to Use	n/a	Exceptions to Criteria	n/a
Assessment Status	Impaired		
Cause(s) of Impairment	Siltation		
Source(s) of Impairment	Agriculture		
TMDL Status	n/a	Name	n/a
Nearest Downstream Public Water Supply Intake	Suez Water		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	2,610
PWS RMI	79	Distance from Outfall (mi)	44.34

(1) The Q7-10 of Middle Creek at Outfall 001 was calculated using thirty years of the most recent flow data, from 1995 to 2025, at USGS Streamgage No. 01554000 (Susquehanna River at Sunbury, PA). A Q7-10 of 2,111 cfs was developed using DFLOW in USGS Hydrologic Toolbox. Based on the stream gage's drainage area of 18,300 mi^2 a low-flow yield of 0.115 cfs/mi^2 was developed. Applying the calculated low-flow yield to Outfall 001's drainage area of 151 mi^2 yields a Q7-0 of 17.4 cfs. A Q7-10 of 50.76 cfs was calculated at downstream RMI 3.14 for modeling purposes. See Attachment A for Q7-10 calculations and supporting documentation.

Outfall Nos.	**002 - 018**	Design Flow (MGD)	n/a
Latitude	Various	Longitude	Various
Quad Name	Freeburg	Quad Code	1230
Wastewater Description:	Stormwater		
Receiving Waters	Middle Creek	Stream Code	17701
NHD Com ID	54965947	RMI	Various
Drainage Area	n/a	Yield (cfs/mi^2)	n/a
Q_{7-10} Flow (cfs)	n/a	Q_{7-10} Basis	n/a
Elevation (ft)	n/a	Slope (ft/ft)	n/a
Watershed No.	6-A	Chapter 93 Class.	TSF
Existing Use	n/a	Existing Use Qualifier	n/a
Exceptions to Use	n/a	Exceptions to Criteria	n/a
Assessment Status	Impaired		
Cause(s) of Impairment	Siltation		
Source(s) of Impairment	Agriculture		
TMDL Status	n/a	Name	n/a

Facility Summary

Wood-Mode LLC falls under SIC Code 2434. These facilities are primarily engaged in manufacturing wood kitchen cabinets and wood bathroom vanities, generally for permanent installation. More specifically, the facility's PPC Plan states that facility manufactures wood cabinets for homes, schools, offices, and churches. The lumber is dried, cut, sanded, finished, and assembled at the plant.

There are 18 outfalls located through the site. An inventory of the outfalls is as follows:

Outfall	Latitude			Longitude			Receiving Water	Discharge Characterization			Design Flow (MGD)
	Deg	Min	Sec	Deg	Min	Sec		Non-Process	Stormwater	Combined	
001 (1)	40	48	17.9	-76	57	40.6	Middle Creek	✓	--	--	0.00121
002	40	48	13	-76	57	58	Middle Creek	--	✓	--	--
003 (2)	40	48	18	-76	57	50	Middle Creek	✓	✓	✓	0.00121
004	40	48	18	-76	57	41	Middle Creek	--	✓	--	--
005	40	48	17	-76	57	39	Middle Creek	--	✓	--	--
006	40	48	16	-76	57	39	Middle Creek	--	✓	--	--
007	40	48	15	-76	57	36	Middle Creek	--	✓	--	--
008	40	48	16	-76	57	31	Middle Creek	--	✓	--	--
009	40	48	15	-76	57	31	Middle Creek	--	✓	--	--
010	40	48	14	-76	57	27	Middle Creek	--	✓	--	--
011	40	48	13	-76	57	26	Middle Creek	--	✓	--	--
012	40	48	12	-76	57	24	Middle Creek	--	✓	--	--
013	40	48	12	-76	57	23	Middle Creek	--	✓	--	--
014	40	48	12	-76	57	22	Middle Creek	--	✓	--	--
015	40	48	12	-76	57	22	Middle Creek	--	✓	--	--
016	40	48	11	-76	57	20	Middle Creek	--	✓	--	--
017	40	48	9	-76	57	19	Middle Creek	--	✓	--	--
018	40	48	18	-76	57	49	Middle Creek	--	✓	--	--

(1) Outfall 001 is a batch discharge of boiler blowdown.

(2) Outfall 003 is a combined discharge of the abovementioned boiler blowdown and stormwater. This outfall is downstream of Outfall 001, so that the boiler blowdown is comingled with stormwater prior to discharge to Middle Creek. Outfall 003 has been designated as the representative stormwater sample outfall. Stormwater samples are collected when there is no influence from the boiler blowdown.

See Attachment B for a map of the facility.

The abovementioned boiler blowdown comes from Boilers 2 and 3 (Boiler 1 is no longer in operation). The blowdown is collected in the "blowdown pit" where sulfuric acid is added on an as-needed basis to adjust the pH.

Compliance History

The facility was most recently inspected by DEP Clean Water Program on August 21, 2025. No violations were noted, and no impacts were observed in Middle Creek upstream or downstream of the outfalls.

The following effluent violations have occurred during the existing permit term:

Noncompliance Date	Parameter	Sample Value	Violation Condition	Permit Value	Units	SBC
11/16/2020	Total Suspended Solids	139	>	60	mg/L	IMAX
11/16/2020	Total Suspended Solids	45	>	30	mg/L	Average Monthly
7/22/2021	Total Suspended Solids	87	>	60	mg/L	IMAX
8/26/2021	Total Suspended Solids	67	>	60	mg/L	IMAX
12/20/2022	Total Suspended Solids	< 32	>	30	mg/L	Average Monthly
12/20/2022	Total Suspended Solids	132	>	60	mg/L	IMAX

There are no open violations associated with the permittee.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.0121
Latitude 40º 48' 17.90" **Longitude** -76º 57' 40.60"
Wastewater Description: Boiler blowdown

Effluent limits are the most stringent of technology-based effluent limitations ("TBELs"), water quality-based effluent limitations ("WQBELs"), or best professional judgment ("BPJ").

Technology-Based Limitations

The first step in developing effluent limitations is to recognize and develop applicable TBELs based on the industrial activity that takes place at the facility for each outfall. TBELs are subject to the development of more stringent WQBELs or BPJ.

ELG Parameters

There are no effluent limit guideline parameters associated with boiler blowdown from facility's associated with SIC Code 2434.

Chapter 95 Industrial Waste Treatment Standards

25 PA Code Chapter 95 establishes industrial waste treatment standards for pH, oil and grease, and dissolved iron as follows:

Parameter	Limit (mg/L)	SBC	State Regulation
pH	6.0	Minimum	95.2(1)
	9.0	IMAX	95.2(1)
Oil and Grease	15	Average Monthly	95.2(2)
	30	IMAX	95.2(2)
Dissolved Iron [(1)]	7.0	Average Monthly	95.2(4)

[(1)] Non-process wastewater discharges (e.g., boiler blowdown) are not required to sample for dissolved iron as part of the application's pollutant sampling. Since dissolved iron is not considered a pollutant of concern, no limits or monitoring requirements are proposed.

Water Quality-Based Limitations

After developing the TBELs, the next step is to determine if there are more stringent WQBELs that must be applied. Generally, toxic pollutants are analyzed using PENTOXSD modeling. However, sampling for toxic pollutants was not required as part of the application due to the expected characteristics of non-process wastewater discharges, such as boiler blowdown. Accordingly, no WQBELs for toxics are proposed.

Since this is a potentially thermally-elevated discharge, the existing temperature limits were reevaluated as part of the WQBEL analysis. The *Thermal Limits Spreadsheet (v1.0, April 2024)* recommends that the existing 110 °F limits, based on public safety rather than water quality, are protective. See Attachment C for the *Thermal Limits Spreadsheet*.

Best Professional Judgment (BPJ) Limitations

DEP proposes to retain the existing daily flow reporting requirement.

Previous permit renewals established total suspended solids limits of 30 mg/l average monthly and 60 mg/l instantaneous maximum so that the discharge does not negatively impact Middle Creek. These limits are still appropriate and are proposed to remain in the permit.

As mentioned above, the existing 110 °F temperature limits are appropriate to ensure public safety.

Chesapeake Bay Requirements

Pennsylvania's *Phase 3 Watershed Implementation Plan Wastewater Supplement (Revised, April 2, 2025)* classifies Wood-Mode LLC as a non-significant industrial waste facility (< 75 lbs/day TN, < 25 lbs/day TP). Non-significant industrial waste facilities are not required to monitor for total nitrogen and total phosphorus if there is no potential for the facility's industrial activities to create a net increase in nutrient loading. DEP has previously determined that there is no potential for the boiler blowdown to contribute to a net increase in nutrients and has historically not established reporting requirements for total nitrogen or total phosphorus. There does not appear to be any changes to the discharge that would impact this previous determination.

Anti-Backsliding

In accordance with 40 CFR 122.44(l)(1) and (2), this permit does not contain effluent limitations, standards, or conditions that are less stringent than the previous permit.

Outfall No. 003 (representative) **Design Flow (MGD)** n/a
Latitude 40° 48' 18" **Longitude** -76° 57' 50"
Wastewater Description: Stormwater

Effluent limits are the most stringent of technology-based effluent limitations ("TBELs"), water quality-based effluent limitations ("WQBELs"), or best professional judgment ("BPJ").

As mentioned in the Facility Summary section above, Outfall 003 has been designated as a representative outfall for stormwater sampling. Sample results from Outfall 003 are indicative of the expected stormwater quality from Outfalls 002 through Outfall 018.

Technology-Based Limitations

There are no applicable technology-based effluent limitations for stormwater discharges associated with SIC Code 2434.

Water Quality-Based Limitations

DEP does not have a protocol for developing water quality-based effluent limitations to stormwater discharges.

Best Professional Judgment (BPJ) Limitations

Historically, DEP has assigned monitoring requirements and best management practices to this discharge partially taken from Appendix J of the PAG-03 (general stormwater permit) since that is the appendix this facility's stormwater outfalls would be covered under if it were covered under the PAG-03. The existing requirements are as follows:

Pollutant	Monitoring Requirements	
	Minimum Measurement Frequency	Sample Type
Total Kjeldahl Nitrogen (mg/L) (1)	1 / 6 months	Grab
Total Suspended Solids (mg/L)	1 / 6 months	Grab
Oil and Grease (mg/L)	1 / 6 months	Grab
Total Iron (mg/L) (1)	1 / 6 months	Grab

(1) TKN and Total Iron are not in Appendix J but were included from previous BPJ determinations.

Since this permit's most recent renewal, Appendix J has been updated, and has the following monitoring requirements:

Pollutant	Monitoring Requirements		Benchmark Requirements
	Minimum Measurement Frequency	Sample Type	
Total Nitrogen (mg/L)	1 / 6 months	Calculation	XXX
Total Phosphorus (mg/L)	1 / 6 months	Grab	XXX
Total Suspended Solids (mg/L)	1 / 6 months	Grab	100
Oil and Grease (mg/L)	1 / 6 months	Grab	30
pH (S.U.)	1 / 6 months	Grab	9.0
Chemical Oxygen Demand (COD)	1 / 6 months	Grab	120

To ensure this permit is at least as stringent as the PAG-03, DEP is proposing to establish the new requirements. Total nitrogen will replace total Kjeldahl nitrogen and total iron will be carried over from the existing permit. New benchmark requirements will also be established to ensure best management practices are in place and working as intended.

Chesapeake Bay Requirements

There are no requirements in Pennsylvania's Phase 3 Watershed Implementation Plan for industrial stormwater discharges.

Anti-Backsliding

In accordance with 40 CFR 122.44(l)(1) and (2), this permit does not contain effluent limitations, standards, or conditions that are less stringent than the previous permit.

Existing Effluent Limitations and Monitoring Requirements

The existing effluent limitations and monitoring requirements are as follows:

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (GPD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Temperature (deg F) (ºF)	XXX	XXX	XXX	XXX	110 Daily Max	XXX	1/month	I-S
Total Suspended Solids	XXX	XXX	XXX	30	XXX	60	1/week	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15	XXX	30	1/month	Grab

Compliance Sampling Location: Outfall 001

Outfall 003, Effective Period: Permit Effective Date through Permit Expiration Date

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Kjeldahl Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfall 003

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" (386-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date

Outfall 001, Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (GPD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Temperature (ºF)	XXX	XXX	XXX	XXX	110 Daily Max	XXX	1/month	I-S
TSS	XXX	XXX	XXX	30	XXX	60	1/week	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15	XXX	30	1/month	Grab

Compliance Sampling Location: Outfall 001

Outfall 003, Effective Period: Permit Effective Date through Permit Expiration Date

Outfall 003, Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Calculation
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfall 003

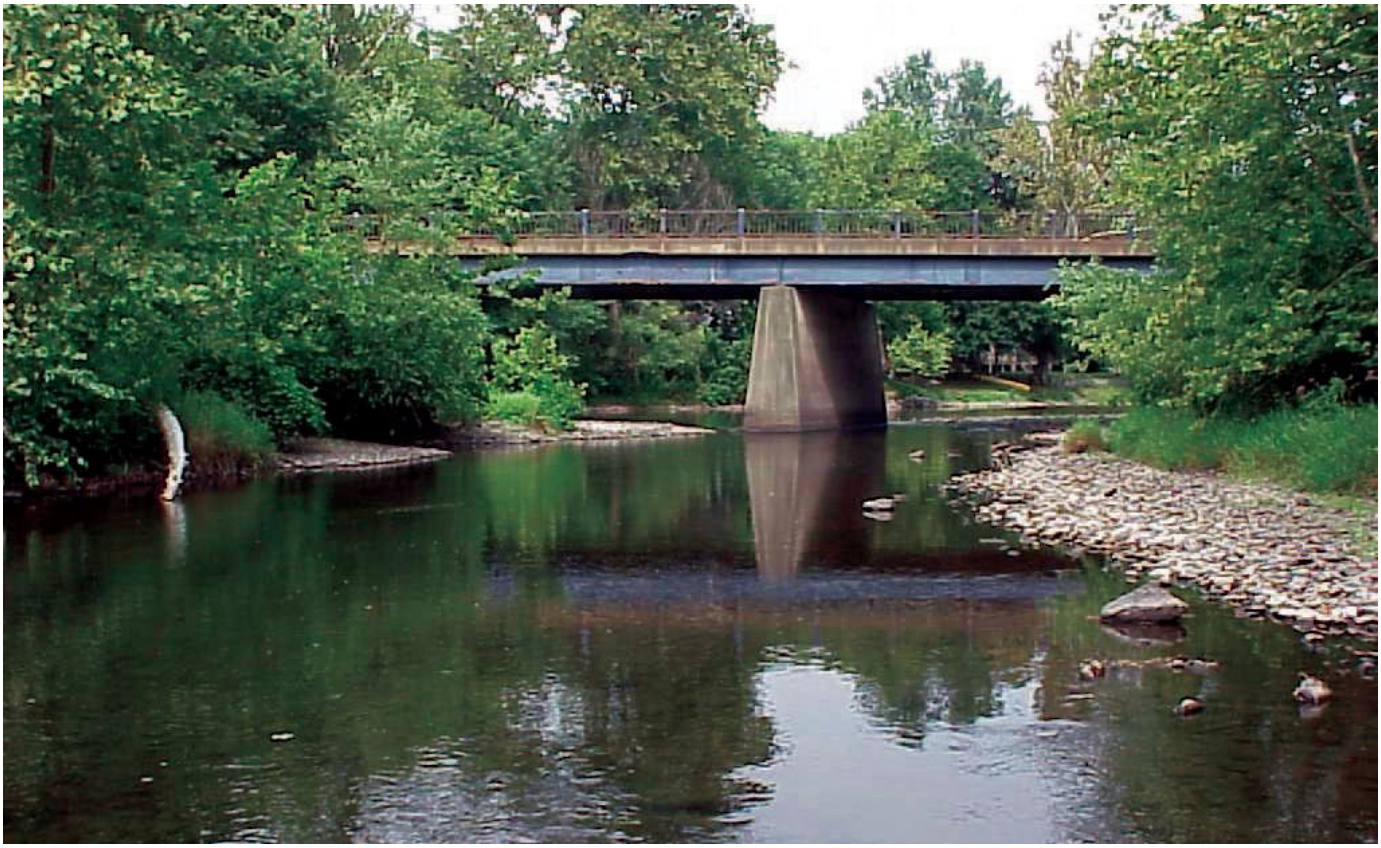
ATTACHMENT A

Q7-10 CALCS AND DOCUMENTATION

USGS
science for a changing world

Prepared in cooperation with the Pennsylvania Department of Environmental Protection

Selected Streamflow Statistics for Streamgage Locations in and near Pennsylvania



Open-File Report 2011-1070

U.S. Department of the Interior
U.S. Geological Survey

Table 1. List of U.S. Geological Survey streamgage locations in and near Pennsylvania with updated streamflow statistics.—Continued

[Latitude and Longitude in decimal degrees; mi^2, square miles]

Streamgage number	Streamgage name	Latitude	Longitude	Drainage area (mi^2)	Regulated[1]
01541303	West Branch Susquehanna River at Hyde, Pa.	41.005	-78.457	474	Y
01541308	Bradley Run near Ashville, Pa.	40.509	-78.584	6.77	N
01541500	Clearfield Creek at Dimeling, Pa.	40.972	-78.406	371	Y
01542000	Moshannon Creek at Osceola Mills, Pa.	40.850	-78.268	68.8	N
01542500	WB Susquehanna River at Karthaus, Pa.	41.118	-78.109	1,462	Y
01542810	Waldy Run near Emporium, Pa.	41.579	-78.293	5.24	N
01543000	Driftwood Branch Sinnemahoning Creek at Sterling Run, Pa.	41.413	-78.197	272	N
01543500	Sinnemahoning Creek at Sinnemahoning, Pa.	41.317	-78.103	685	N
01544000	First Fork Sinnemahoning Creek near Sinnemahoning, Pa.	41.402	-78.024	245	Y
01544500	Kettle Creek at Cross Fork, Pa.	41.476	-77.826	136	N
01545000	Kettle Creek near Westport, Pa.	41.320	-77.874	233	Y
01545500	West Branch Susquehanna River at Renovo, Pa.	41.325	-77.751	2,975	Y
01545600	Young Womans Creek near Renovo, Pa.	41.390	-77.691	46.2	N
01546000	North Bald Eagle Creek at Milesburg, Pa.	40.942	-77.794	119	N
01546400	Spring Creek at Houserville, Pa.	40.834	-77.828	58.5	N
01546500	Spring Creek near Axemann, Pa.	40.890	-77.794	87.2	N
01547100	Spring Creek at Milesburg, Pa.	40.932	-77.786	142	N
01547200	Bald Eagle Creek below Spring Creek at Milesburg, Pa.	40.943	-77.786	265	N
01547500	Bald Eagle Creek at Blanchard, Pa.	41.052	-77.604	339	Y
01547700	Marsh Creek at Blanchard, Pa.	41.060	-77.606	44.1	N
01547800	South Fork Beech Creek near Snow Shoe, Pa.	41.024	-77.904	12.2	N
01547950	Beech Creek at Monument, Pa.	41.112	-77.702	152	N
01548005	Bald Eagle Creek near Beech Creek Station, Pa.	41.081	-77.549	562	Y
01548500	Pine Creek at Cedar Run, Pa.	41.522	-77.447	604	N
01549000	Pine Creek near Waterville, Pa.	41.313	-77.379	750	N
01549500	Blockhouse Creek near English Center, Pa.	41.474	-77.231	37.7	N
01549700	Pine Creek below Little Pine Creek near Waterville, Pa.	41.274	-77.324	944	Y
01550000	Lycoming Creek near Trout Run, Pa.	41.418	-77.033	173	N
01551500	WB Susquehanna River at Williamsport, Pa.	41.236	-76.997	5,682	Y
01552000	Loyalsock Creek at Loyalsockville, Pa.	41.325	-76.912	435	N
01552500	Muncy Creek near Sonestown, Pa.	41.357	-76.535	23.8	N
01553130	Sand Spring Run near White Deer, Pa.	41.059	-77.077	4.93	N
01553500	West Branch Susquehanna River at Lewisburg, Pa.	40.968	-76.876	6,847	Y
01553700	Chillisquaque Creek at Washingtonville, Pa.	41.062	-76.680	51.3	N
01554000	Susquehanna River at Sunbury, Pa.	40.835	-76.827	18,300	Y
01554500	Shamokin Creek near Shamokin, Pa.	40.810	-76.584	54.2	N
01555000	Penns Creek at Penns Creek, Pa.	40.867	-77.048	301	N
01555500	East Mahantango Creek near Dalmatia, Pa.	40.611	-76.912	162	N
01556000	Frankstown Branch Juniata River at Williamsburg, Pa.	40.463	-78.200	291	N
01557500	Bald Eagle Creek at Tyrone, Pa.	40.684	-78.234	44.1	N
01558000	Little Juniata River at Spruce Creek, Pa.	40.613	-78.141	220	N
01559000	Juniata River at Huntingdon, Pa.	40.485	-78.019	816	LF
01559500	Standing Stone Creek near Huntingdon, Pa.	40.524	-77.971	128	N
01559700	Sulphur Springs Creek near Manns Choice, Pa.	39.978	-78.619	5.28	N
01560000	Dunning Creek at Belden, Pa.	40.072	-78.493	172	N

RESULTS: USGS 01554000 Susquehanna River at Sunbury, PA

All available data from Apr 1, 1995 through Mar 31, 2025 are included in analysis.

Flow Statistic	Flow Value	Percentile
1Q10	1,988	0.24%
7Q10	2,110.70	0.33%
30Q10	2,507	1.13%
Harmonic Mean	11,705	31.84%
Harmonic Mean, Adjusted	11,705	31.84%

StreamStats Output Report

Latitude 40.80515
Longitude -76.96108

Basin Characteristics			
Parameter Code	**Parameter Description**	**Value**	**Unit**
BSLOPD	Mean basin slope measured in degrees	8.2392	degrees
BSLOPDRAW	Unadjusted basin slope, in degrees	8.4629	degrees
BSLPDRPA20	Unadjusted basin slope, in degrees, from PA v1	8.7928	degrees
CARBON	Percentage of area of carbonate rock	12.29	percent
CENTROXA83	X coordinate of the centroid, in NAD_1983_Albers, meters	70003.7525	meters
CENTROYA83	Basin centroid horizontal (y) location in NAD 1983 Albers	197360.0366	meters
DRN	Drainage quality index from STATSGO	3.18	dimensionless
DRNAREA	Area that drains to a point on a stream	151	square miles
ELEV	Mean Basin Elevation	933.9	feet
ELEVMAX	Maximum basin elevation	2216.4	feet
FOREST	Percentage of area covered by forest	61.0584	percent
GLACIATED	Percentage of basin area that was historically covered by glaciers	0	percent
IMPNLCD01	Percentage of impervious area determined from NLCD 2001 impervious dataset	1.0282	percent
LC01DEV	Percentage of land-use from NLCD 2001 classes 21-24	7.2995	percent
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	7.3779	percent
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	1.1212	percent
LONG_OUT	Longitude of Basin Outlet	-76.9611253	decimal degrees
MAXTEMP	Mean annual maximum air temperature over basin area from PRISM 1971-2000 800-m grid	60.51	degrees F
OUTLETXA83	X coordinate of the outlet, in NAD_1983_Albers,meters	87647.9676	meters
OUTLETYA83	Y coordinate of the outlet, in NAD_1983_Albers, meters	200939.7774	meters
PRECIP	Mean Annual Precipitation	43.1	inches
ROCKDEP	Depth to rock	4.46	feet
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0.96	percent
STRDEN	Stream Density -- total length of streams divided by drainage area	2.129	miles per square mile
STRMTOT	total length of all mapped streams (1:24,000-scale) in the basin	321.546	miles
URBAN	Percentage of basin with urban development	1.1565	percent

StreamStats Output Report

Latitude 40.77081
Longitude -76.89999

Basin Characteristics			
Parameter Code	**Parameter Description**	**Value**	**Unit**
BSLOPD	Mean basin slope measured in degrees	8.0842	degrees
BSLOPDRAW	Unadjusted basin slope, in degrees	8.307	degrees
BSLPDRPA20	Unadjusted basin slope, in degrees, from PA v1	8.6519	degrees
CARBON	Percentage of area of carbonate rock	13.57	percent
CENTROXA83	X coordinate of the centroid, in NAD_1983_Albers, meters	71859.8622	meters
CENTROYA83	Basin centroid horizontal (y) location in NAD 1983 Albers	197397.9785	meters
DRN	Drainage quality index from STATSGO	3.18	dimensionless
DRNAREA	Area that drains to a point on a stream	167	square miles
ELEV	Mean Basin Elevation	906.2	feet
ELEVMAX	Maximum basin elevation	2216.4	feet
FOREST	Percentage of area covered by forest	58.5838	percent
GLACIATED	Percentage of basin area that was historically covered by glaciers	0	percent
IMPNLCD01	Percentage of impervious area determined from NLCD 2001 impervious dataset	1.0888	percent
LC01DEV	Percentage of land-use from NLCD 2001 classes 21-24	7.5737	percent
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	7.7051	percent
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	1.2174	percent
LONG_OUT	Longitude of Basin Outlet	-76.8999989	decimal degrees
MAXTEMP	Mean annual maximum air temperature over basin area from PRISM 1971-2000 800-m grid	60.54	degrees F
OUTLETXA83	X coordinate of the outlet, in NAD_1983_Albers,meters	92852.8734	meters
OUTLETYA83	Y coordinate of the outlet, in NAD_1983_Albers, meters	197188.1761	meters
PRECIP	Mean Annual Precipitation	42.9	inches
ROCKDEP	Depth to rock	4.45	feet
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0.93	percent
STRDEN	Stream Density -- total length of streams divided by drainage area	2.133	miles per square mile
STRMTOT	total length of all mapped streams (1:24,000-scale) in the basin	356.221	miles
URBAN	Percentage of basin with urban development	1.1788	percent

Low-Flow (Q_{7-10}) Calculation

Facility: **Wood-Mode LLC**
NPDES Permit No. **PA0110680**

Gage Information

Drainage Area: **18300** mi^2
Q_{7-10}: **2111** cfs
LFY: **0.115** cfsm

Outfall Information

Drainage Area: **151** mi^2
Q_{7-10}: **17.4** cfs

Downstream Locations

RMI: **3.14**
Drainage Area: **440** mi^2
Q_{7-10}: **50.76** cfs

RMI:
Drainage Area: mi^2
Q_{7-10}: cfs

RMI:
Drainage Area: mi^2
Q_{7-10}: cfs

RMI:
Drainage Area: mi^2
Q_{7-10}: cfs

RMI:
Drainage Area: mi^2
Q_{7-10}: cfs

RMI:
Drainage Area: mi^2
Q_{7-10}: cfs

RMI:
Drainage Area: mi^2
Q_{7-10}: cfs

RMI:
Drainage Area: mi^2
Q_{7-10}: cfs

ATTACHMENT B

FACILITY MAP


Wood-Mode LLC
Outfall Locations
003
018
004
001
Wood-Mode LLC
005
006
007
008
009
010
011
012
013
014
015
016
017
002
522
2nd St
1st St
Freeburg Rd
Kreamer Ave
Old Kantz St
Old Kantz St
Old Kantz St
Pioneer St
Viner St
1st St
Peppermint Ln
Creek Mountain Rd
Creek Mountain Rd
Google Earth
Image © 2025 Airbus
900 ft
N

ATTACHMENT C

THERMAL LIMITS SPREADSHEET

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Instructions | ***Inputs***

Facility: **Wood-Mode LLC**

Permit No.: **PA0110680**

Stream Name: **Middle Creek**

Analyst/Engineer: **Derek Garner**

Stream Q7-10 (cfs)*: **17.4**

Outfall No.: **001**

Analysis Type*: **TSF**

Facility Flows

Semi-Monthly Increment	Intake (Stream) (MGD)*	Intake (External) (MGD)*	Consumptive Loss (MGD)*	Discharge Flow (MGD)
Jan 1-31	0	0.00121	0	0.00121
Feb 1-29	0	0.00121	0	0.00121
Mar 1-31	0	0.00121	0	0.00121
Apr 1-15	0	0.00121	0	0.00121
Apr 16-30	0	0.00121	0	0.00121
May 1-15	0	0.00121	0	0.00121
May 16-31	0	0.00121	0	0.00121
Jun 1-15	0	0.00121	0	0.00121
Jun 16-30	0	0.00121	0	0.00121
Jul 1-31	0	0.00121	0	0.00121
Aug 1-15	0	0.00121	0	0.00121
Aug 16-31	0	0.00121	0	0.00121
Sep 1-15	0	0.00121	0	0.00121
Sep 16-30	0	0.00121	0	0.00121
Oct 1-15	0	0.00121	0	0.00121
Oct 16-31	0	0.00121	0	0.00121
Nov 1-15	0	0.00121	0	0.00121
Nov 16-30	0	0.00121	0	0.00121
Dec 1-31	0	0.00121	0	0.00121

Stream Flows

Q7-10 Multipliers (Default Shown)	PMF	Seasonal Stream Flow (cfs)	Downstream Stream Flow (cfs)
3.2	1.00	55.68	55.68
3.5	1.00	60.90	60.90
7	1.00	121.80	121.80
9.3	1.00	161.82	161.82
9.3	1.00	161.82	161.82
5.1	1.00	88.74	88.74
5.1	1.00	88.74	88.74
3	1.00	52.20	52.20
3	1.00	52.20	52.20
1.7	1.00	29.58	29.58
1.4	1.00	24.36	24.36
1.4	1.00	24.36	24.36
1.1	1.00	19.14	19.14
1.1	1.00	19.14	19.14
1.2	1.00	20.88	20.88
1.2	1.00	20.88	20.88
1.6	1.00	27.84	27.84
1.6	1.00	27.84	27.84
2.4	1.00	41.76	41.76

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Thermal Limits Spreadsheet
Version 1.0, April 2024

Instructions | *TSF Results*

Recommended Limits for Case 1 or Case 2

Semi-Monthly Increment	**TSF** Target Maximum Stream Temp. (ºF)	**Case 1** Daily WLA (Million BTUs/day)	**Case 2** Daily WLA (ºF)
Jan 1-31	40	N/A -- Case 2	110.0
Feb 1-29	40	N/A -- Case 2	110.0
Mar 1-31	46	N/A -- Case 2	110.0
Apr 1-15	52	N/A -- Case 2	110.0
Apr 16-30	58	N/A -- Case 2	110.0
May 1-15	64	N/A -- Case 2	110.0
May 16-31	68	N/A -- Case 2	110.0
Jun 1-15	70	N/A -- Case 2	110.0
Jun 16-30	72	N/A -- Case 2	110.0
Jul 1-31	74	N/A -- Case 2	110.0
Aug 1-15	80	N/A -- Case 2	110.0
Aug 16-31	87	N/A -- Case 2	110.0
Sep 1-15	84	N/A -- Case 2	110.0
Sep 16-30	78	N/A -- Case 2	110.0
Oct 1-15	72	N/A -- Case 2	110.0
Oct 16-31	66	N/A -- Case 2	110.0
Nov 1-15	58	N/A -- Case 2	110.0
Nov 16-30	50	N/A -- Case 2	110.0
Dec 1-31	42	N/A -- Case 2	110.0