pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0255505**
Facility Type	**Stormwater**	APS ID	**1097506**
Major / Minor	**Minor**	Authorization ID	**1456108**

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

Applicant and Facility Information

Applicant Name	**MarkWest Liberty Midstream & Resources, L.L.C.**	Facility Name	**Welling Compressor Station**
Applicant Address	4600 J Barry Court, Suite 500	Facility Address	165 Carlisle Road
	Canonsburg, PA 15317-5854		Claysville, PA 15323-1349
Applicant Contact	Ronald Jenkins	Facility Contact	Ronald Jenkins
Applicant Phone	(724) 873-5385	Facility Phone	(724) 873-5385
Client ID	271958	Site ID	737309
SIC Code	1311	Municipality	Buffalo Township
SIC Description	Crude Petroleum and Natural Gas	County	Washington
Date Application Received	September 26, 2023	EPA Waived?	Yes
Date Application Accepted	September 26, 2023	If No, Reason	

Purpose of Application: NPDES permit renewal for discharge of untreated stormwater

Summary of Review

The Department received a renewal NPDES permit application for industrial stormwater from MarkWest Liberty Midstream & Resources, L.L.C. for the Welling Compressor Station on 9/26/2023. The current permit is the first NPDES permit issued to the facility after its construction and was issued on 3/18/2019 with an effective date of 4/1/2019 and an expiration date of 3/31/2024.

The existing compressor site and associated stormwater facilities were constructed under Erosion and Sediment Control General Permit ESX10-125-0069. The ESCGP was terminated on April 12, 2016. Shown in Figure 1, the facility is a compressor station for natural gas gathering pipelines that consists of three compressor buildings, an electric substation, a produced water (brine) condensation tank farm, and a gravel yard with associated compressor infrastructure. Full material & waste inventory along with containment, location, and spill response materials are shown in Table 1.

Stormwater runoff from the building roofs and the gravel yard flow through a perforated pipe system to a stormwater detention pond that discharges via Outfall 001. No changes are being proposed to the existing pond and associated conveyance facilities for this renewal. Outfall 001 discharges to an existing wetland feeding a 0.4-mile long unnamed tributary to Wolf Run in the hollow along Carlisle Road. This tributary is not included in Department records or the National Hydrography Dataset so is assumed to be ephemeral and thus will have the same designation as the downstream point of first surface water use. Wolf Run and all its recorded tributaries have a 25 PA Code Chapter 93 High Quality-Warm Water Fishes (HQ-WWF) designated use and are not considered impaired (source: *2022 Integrated Report*).

Approve	Deny	Signatures	Date
X		Jace William Marsh / Environmental Engineering Specialist	January 23, 2024
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	January 29, 2024

Summary of Review

No recorded leaks or spills have reached stormwater outfalls within the past five years. The application states in early 2018 a malfunction in the gravity fed lube oil header in Welling Phase 4 resulted in virgin lubricating oil discharging through a breather vent on the north side of the compressor building. Oil flowed to a nearby stormwater inlet and was conveyed to the stormwater basin. A small amount of sheen was discharged from the outlet structure. Upon discovery, the spill areas and stormwater basin were cleaned. The PPC Plan has been updated to implement preventative measures to be taken to reduce the possibility of future incidents.

The permittee has 141 open violations with 1 from Air Quality and the remaining 140 from Oil & Gas. None of the open violations are for this facility. An inspection by the Clean Water Program has not occurred in the past five years. A compliance evaluation inspection is recommended.

The site discharges stormwater to a HQ-WWF so in order to ensure that the discharge does not degrade the stream, the PAG-03 No Exposure Certification concentrations will be used as the benchmark values in the permit. The goal for the permittee is to consistently achieve pollutant discharge concentrations that are below these benchmark values; doing this shows that the discharges are uncontaminated stormwater and will maintain and protect the existing quality of Wolf Run.

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.

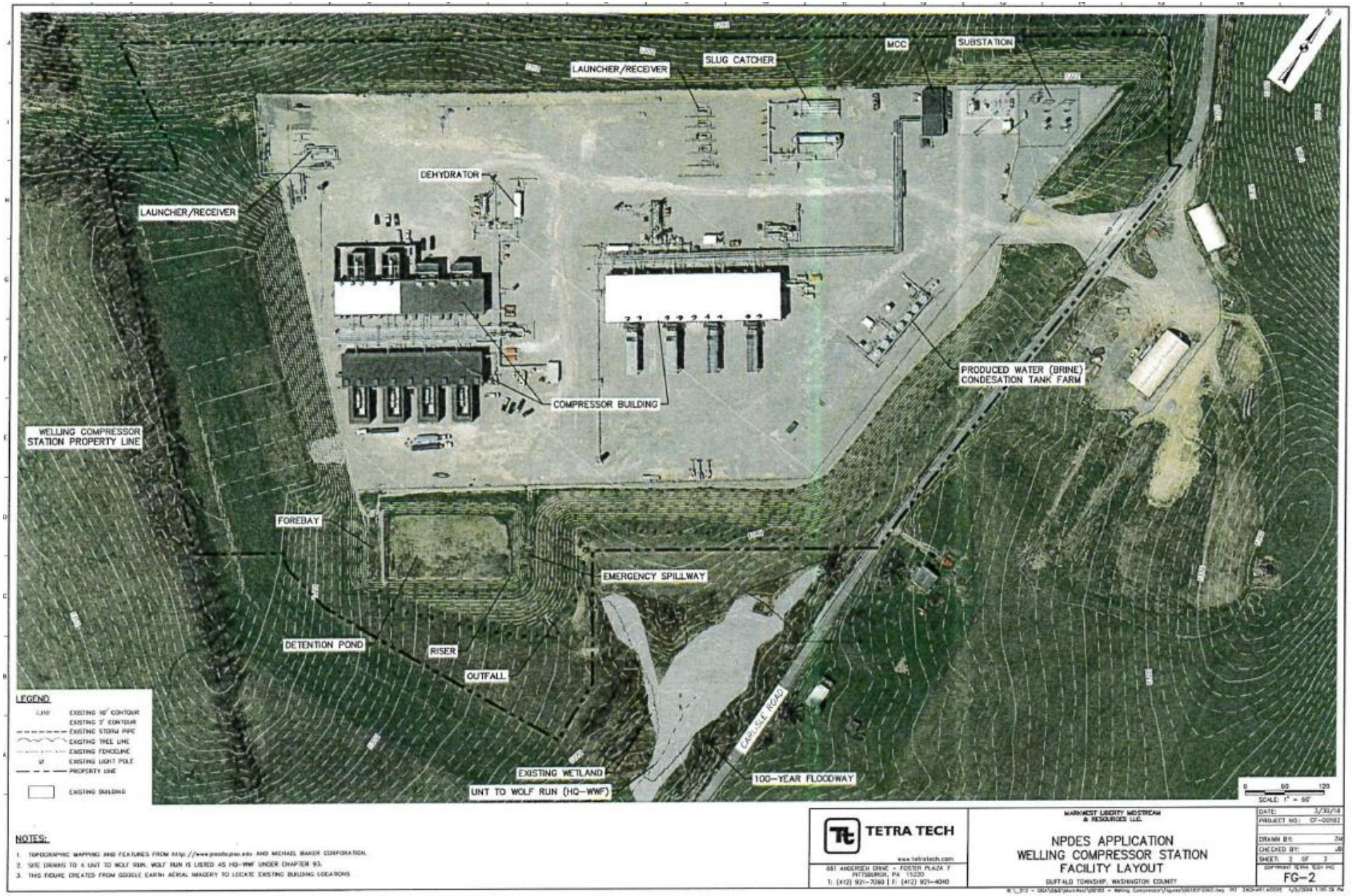


Figure 1. Layout of Welling Compressor Station

POLLUTIONAL MATERIAL	VOLUME OR QUANTITY	SECONDARY CONTAINMENT (YES/NO)	LOCATION ON SITE	SPILL CONTAINMENT MATERIALS ONSITE LOCATION
Triethylene Glycol (TEG)	2,080 gallons	Yes	Northern portion of pad	Spill kit to include, sorbent pads, socks
Methanol	2,080 gallons	Yes	Southwestern side of pad near MCC Bldg.	Spill kit to include, sorbent pads, socks
Ethylene Glycol Coolant (antifreeze)	4,000 gallons	Yes	In Compressor Bldg. adjacent to each compressor	Spill kit to include, sorbent pads, socks
Lube Oil (new & used)	15,000 gallons	Yes	In Compressor Bldg. adjacent to each compressor and southwestern side of pad near MCC Bldg.	Spill kit to include, sorbent pads, socks
Produced water/condensate	121,800 gallons	Yes	Northwestern corner of pad at Tank Farm	Spill kit to include, sorbent pads, socks

Table 1. Material & waste inventory of Welling Compressor Station

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0
Latitude	40º 11' 20"	Longitude	-80º 21' 27"
Quad Name	Washington West	Quad Code	1703
Wastewater Description:	Stormwater		
Receiving Waters	Unnamed Tributary to Wolf Run (HQ-WWF)	Stream Code	n/a
NHD Com ID	73864588	RMI	0.2700
Drainage Area	0.0478 mi^2	Yield (cfs/mi^2)	0.00423
Q_{7-10} Flow (cfs)	0.000202	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1304	Slope (ft/ft)	0.07
Watershed No.	20-E	Chapter 93 Class.	HQ-WWF
Existing Use	HQ-WWF	Existing Use Qualifier	Aquatic Life
Exceptions to Use	n/a	Exceptions to Criteria	n/a
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	n/a		
Source(s) of Impairment	n/a		
TMDL Status	n/a	Name	n/a
Nearest Downstream Public Water Supply Intake	unknown (16 miles downstream to West Virginia border)		
PWS Waters	unknown	Flow at Intake (cfs)	unknown
PWS RMI	unknown	Distance from Outfall (mi)	>16 miles

Changes Since Last Permit Issuance: no major changes

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	0
Latitude	40º 11' 20"	**Longitude**	-80º 21' 27"
Wastewater Description:	Stormwater		

Technology-Based Limitations

Outfall 001 will be subject to 2022 PAG-03 General Stormwater permit conditions as a minimum requirement because the outfalls discharge stormwater associated with industrial activity. The SIC code for the site is 1311—Crude Petroleum and Natural Gas and the corresponding appendix of the PAG-03 that would apply to the facility is Appendix J—Additional Facilities. The reporting requirements applicable to stormwater discharges are shown in Table 2 below. Along with the monitoring requirements, sector specific Best Management Practices (BMPs) included in Appendix J of the PAG-03 will also be included in Part C of the Draft Permit.

Table 2. PAG-03 Appendix J 2022 monitoring requirements

Parameter	Benchmark Values (mg/L)	Measurement Frequency	Sample Type
Total Nitrogen	XXX	1/6 Months	Grab
Total Phosphorus	XXX	1/6 Months	Grab
Total Suspended Solids (TSS)	100	1/6 Months	Grab
Oil & Grease	30	1/6 Months	Grab
pH (S.U.)	9.0	1/6 Months	Grab
Chemical Oxygen Demand (COD)	120	1/6 Months	Grab

Water Quality-Based Limitations

Stormwater WQBELs

Water quality analyses are typically performed under low-flow (Q7-10) stream conditions. Stormwater discharges occur at variable rates and frequencies but not however during Q7-10 conditions. Since the discharge from Outfall 001 is composed entirely of stormwater, a formal water quality analysis cannot be accurately conducted. Accordingly, water quality-based effluent limitations are not proposed.

Anti-Degradation

Wolf Run and all its recorded tributaries have a 25 PA Code Chapter 93 High Quality-Warm Water Fishes (HQ-WWF) designated use and are not considered impaired (source: *2022 Integrated Report*). Antidegradation regulations under Chapter 93.4c(a)(l)(i) requires existing use protection when information available indicates a surface water attains or has attained an existing use. Facilities discharging stormwater to a HQ-WWF stream are not eligible for PAG-03 permits due to degradation risks, so more stringent stormwater benchmarks must be put into place.

To ensure that the discharge does not degrade the stream, the PAG-03 No Exposure Certification concentrations shown in Table 3 below will be used as the benchmark values in the Draft Permit. If a facility's stormwater discharge meets the stringent concentrations of No Exposure Certification, then it is assumed that the stormwater is uncontaminated and not contributing to stream degradation. These benchmark values are not effluent limitations, and an exceedance of the benchmark value is not a violation. An exceedance of the benchmark provides permittees with an indication that the facility's BMPs may not be sufficiently controlling pollutants in stormwater. A Part C condition is included in the Draft Permit requiring a Corrective Action Plan to evaluate site stormwater controls and BMPs when there is an exceedance of the benchmark values, which are also included in the Part C condition.

Table 3. No Exposure Certification concentrations

Parameter	No Exposure Certification Concentrations (mg/L)
Oil & Grease	≤ 5.0
5-Day Biochemical Oxygen Demand (BOD5)	≤ 10
Chemical Oxygen Demand (COD)	≤ 30
Total Suspended Solids (TSS)	≤ 30
Total Nitrogen	≤ 2.0
Total Phosphorus	≤ 1.0
Total Iron	≤ 7.0
pH (S.U.)	6.0-9.0 (unless precipitation pH is below 6.0)

Anti-Backsliding

Previous limits can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(l). Shown in Table 4, previous benchmarks imposed at Outfall 001 were a combination of Appendix J parameters of the 2016 PAG-03 and No Exposure Certification concentrations.

Table 4. PAG-03 Appendix O 2016 monitoring requirements

Parameter	Benchmark Values (mg/L)	Measurement Frequency	Sample Type
Total Suspended Solids (TSS)	30	1/6 Months	Grab
Oil & Grease	5.0	1/6 Months	Grab

Proposed Effluent Limitations and Monitoring Requirements

Effluent limits imposed at IMP 101 are the more stringent of TBELs, WQBELs, regulatory effluent standards, and monitoring requirements as summarized in Table 5. The pH benchmark was adjusted to ≤9.0 S.U. to reflect possible influence of acid rain on stormwater in order to avoid benchmark exceedances from natural causes.

Table 5. Proposed stormwater effluent limitations

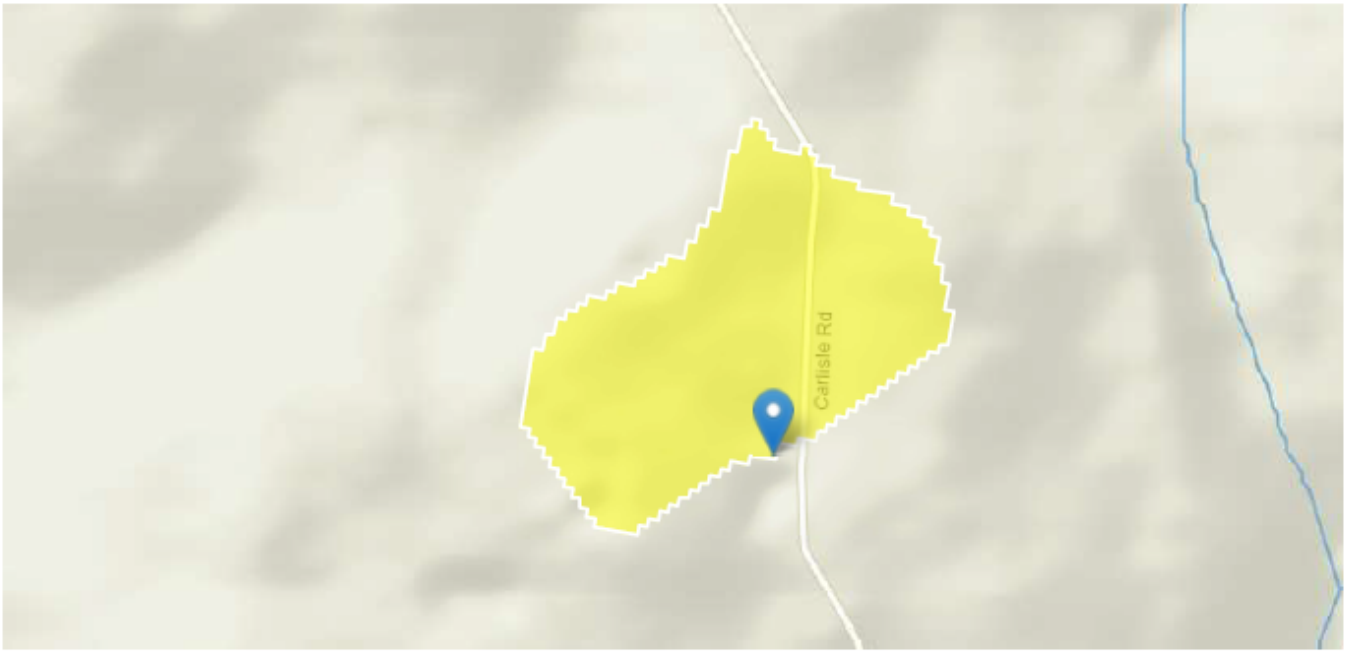
Parameter	Daily Maximum (mg/L)	Benchmark Value (mg/L)	Monitoring Frequency	Sample Type
Oil & Grease	Report	≤ 5.0	1/6 Months	Grab
5-Day Biochemical Oxygen Demand (BOD5)	Report	≤ 10	1/6 Months	Grab
Chemical Oxygen Demand (COD)	Report	≤ 30	1/6 Months	Grab
Total Suspended Solids (TSS)	Report	≤ 30	1/6 Months	Grab
Total Nitrogen	Report	≤ 2.0	1/6 Months	Grab
Total Phosphorus	Report	≤ 1.0	1/6 Months	Grab
Total Iron	Report	≤ 7.0	1/6 Months	Grab
pH (S.U.)	Report	≤ 9.0	1/6 Months	Grab

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, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☒	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☒	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☐	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 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, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 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, 386-2000-010, 3/1999.
☐	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP: New and Reissuance Industrial Waste and Industrial Stormwater Individual NPDES Permit Applications BPNSM-PMT-001
☒	Other: USGS StreamStats (see attachment A), 2022 Integrated Report, 2022 PAG-03

Attachment A

Welling Compressor Station StreamStats Report

Region ID: PA
Workspace ID: PA20240124183052230000
Clicked Point (Latitude, Longitude): 40.18918, -80.35645
Time: 2024-01-24 13:31:15 -0500



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	3.9471	degrees
DRNAREA	Area that drains to a point on a stream	0.0478	square miles
ELEV	Mean Basin Elevation	1304	feet

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0478	square miles	2.26	1400
ELEV	Mean Basin Elevation	1304	feet	1050	2580

Low-Flow Statistics Disclaimers [Low Flow Region 4]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Low-Flow Statistics Flow Report [Low Flow Region 4]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.000942	ft^3/s
30 Day 2 Year Low Flow	0.0021	ft^3/s
7 Day 10 Year Low Flow	0.000202	ft^3/s
30 Day 10 Year Low Flow	0.000549	ft^3/s
90 Day 10 Year Low Flow	0.00133	ft^3/s

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. (http://pubs.usgs.gov/sir/2006/5130/)

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StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1