

Application Type Renewal  
Facility Type Storm Water  
Major / Minor Minor

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

Application No. PA0217425  
APS ID 1087644  
Authorization ID 1438222

**Applicant and Facility Information**



Applicant Name	<u>Pilot Travel Centers LLC</u>	Facility Name	<u>Pilot Travel Center #348</u>
Applicant Address	<u>5508 Lonas Drive</u> <u>Knoxville, TN 37909-3221</u>	Facility Address	<u>205 Wilson Road</u> <u>Bentleyville, PA 15314-1029</u>
Applicant Contact	<u>Joey Cupp</u>	Facility Contact	<u>Joey Cupp</u>
Applicant Phone	<u>865-474-2826</u>	Facility Phone	<u>865-474-2826</u>
Client ID	<u>135750</u>	Site ID	<u>525290</u>
SIC Code	<u>5541 (primary); 5812 (secondary)</u>	Municipality	<u>Bentleyville Borough</u>
SIC Description	<u>Gasoline Service Stations; Eating Places</u>	County	<u>Washington</u>
Date Application Received	<u>April 28, 2023</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>May 9, 2023</u>	If No, Reason	<u></u>
Purpose of Application	<u>NPDES permit renewal for discharges of treated and untreated storm water from a gasoline service station</u>		

**Summary of Review**

DEP received an application submitted by Pilot Travel Centers LLC (Pilot) on April 28, 2023 to renew NPDES Permit PA0217425 for stormwater discharges from Pilot Travel Center #348 located just south of Interstate 70 near Bentleyville. The current NPDES permit was issued on October 9, 2018 with an effective date of November 1, 2018 and an expiration date of October 31, 2023.

Shown in Figure 1, the facility operates diesel and gasoline fueling islands with an aboveground diesel storage tank located in a diked area, underground storage tanks, parking areas for semi-trucks, a truck scale, a truck wash, a convenience store, and a restaurant. Storm water from the diesel fueling island, diesel delivery area, and storage tank containment dike flow to an oil/water separator. Treated effluent from the separator flows to concrete-lined Environmental Control Pond #1 (ECP #1). ECP #1 also receives runoff from a catch basin located outside the facility's truck wash building; this catch basin receives incidental contributions of overspray/runoff wash waters from vehicles leaving the truck wash building. Once water in ECP #1 reaches a certain level, it will overflow into a pipe leading to Environmental Control Pond #2 (ECP #2). Another pipe carrying runoff collected in catch basins near the diesel fueling island and behind the store/restaurant intercepts the overflow pipe from ECP #1 at a catch basin located near the truck scale. The combined sources discharge into the western side of ECP #2. A second storm sewer system collects runoff from the gasoline fueling island and parking areas. This second system empties into ECP #2 at the pond's eastern side. ECP #2 is equipped with an outlet structure that flows through a concrete culvert beneath nearby railroad tracks to Pigeon Creek. ECP #2 is an earthen basin.

The current permit has three Internal Monitoring Points (IMPs) called IMP 101, 201, and 301 and one final outfall called Outfall 001. Internal Monitoring Point 101 is the effluent from the oil/water separator. IMP 201 is the outlet of the pipe from ECP #1 where it empties into the western side of ECP #2. IMP 301 is the outlet of the pipe from the gasoline fueling island

Approve	Deny	Signatures	Date
X		 Jace William Marsh / Environmental Engineering Trainee	August 18, 2023
X		 Michael E. Fifth, P.E. / Environmental Engineer Manager	September 1, 2023

**Summary of Review**

and parking areas where it empties into the eastern side of ECP #2. Outfall 001 is the outlet from ECP #2 to Pigeon Creek. Pigeon Creek has a 25 PA Code Chapter 93 Warm Water Fishes designated use at these outfalls and is attaining its designated use.

Effluent limits for Oil & Grease will continue to be imposed at IMP 101 to monitor the effectiveness of the oil/water separator. Semi-annual monitoring requirements for storm water will continue to be imposed at IMP 201, IMP 301, and Outfall 001 to evaluate the effectiveness of Pilot's storm water Best Management Practices (BMPs).

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.



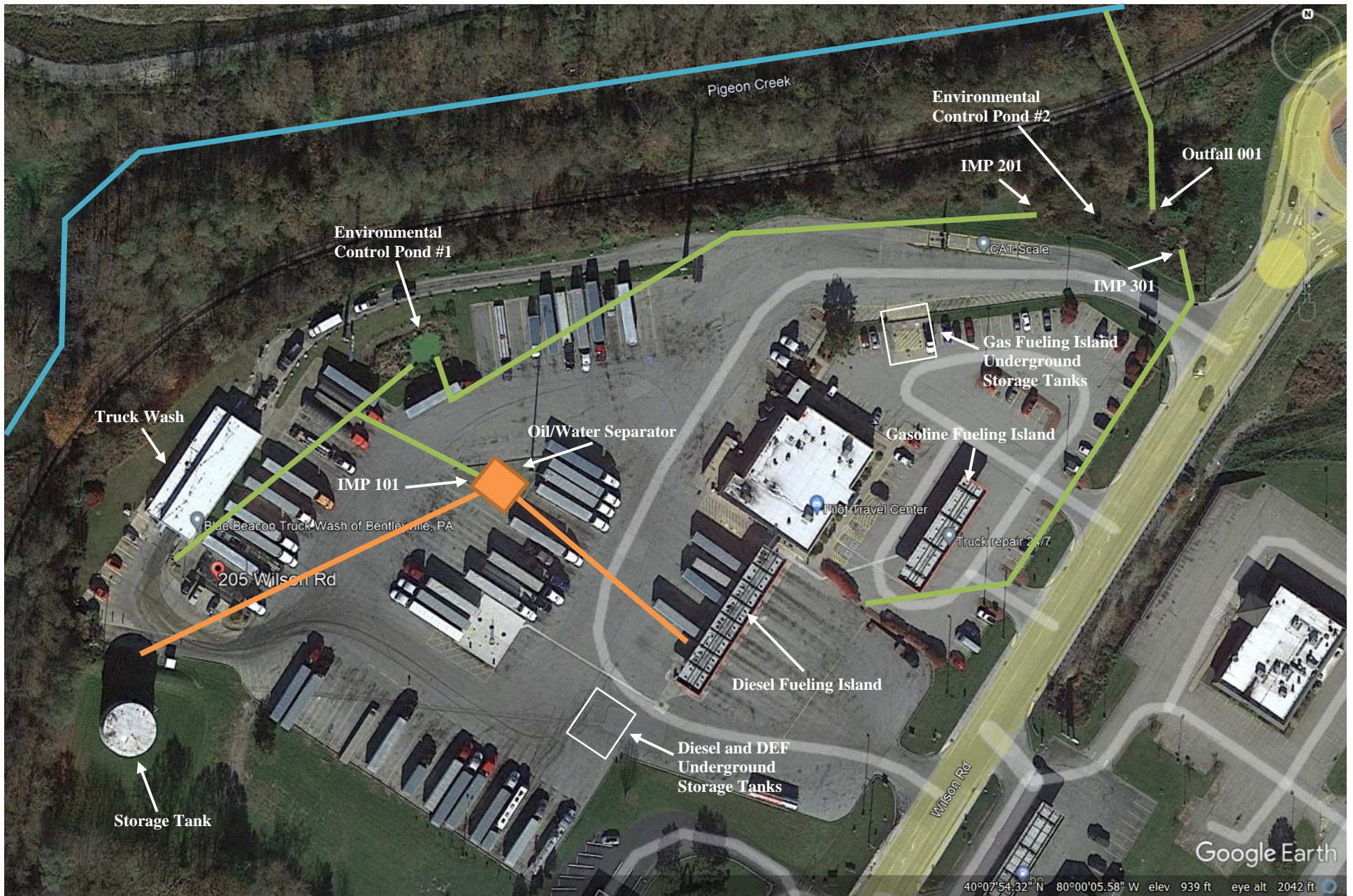


Figure 1. Layout of Pilot Travel Center #348

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>Variable</u>
Latitude	<u>40° 07' 57.92"</u>	Longitude	<u>-79° 59' 59.53"</u>
Quad Name	<u>Hackett</u>	Quad Code	<u>1705</u>
Wastewater Description: <u>Stormwater—sources monitored at IMPs 101, 201, and 301</u>			
Receiving Waters	<u>Pigeon Creek (WWF)</u>	Stream Code	<u>39637</u>
NHD Com ID	<u>99410124</u>	RMI	<u>0.5400</u>
Drainage Area	<u>36.8 mi<sup>2</sup></u>	Yield (cfs/mi <sup>2</sup> )	<u>0.0185</u>
Q <sub>7-10</sub> Flow (cfs)	<u>0.681</u>	Q <sub>7-10</sub> Basis	<u>USGS Streamstats</u>
Elevation (ft)	<u>908</u>	Slope (ft/ft)	<u>0.007</u>
Watershed No.	<u>19-C</u>	Chapter 93 Class.	<u>WWF</u>
Existing Use	<u>WWF</u>	Existing Use Qualifier	<u>Aquatic Life</u>
Exceptions to Use	<u>n/a</u>	Exceptions to Criteria	<u>n/a</u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>n/a</u>		
Source(s) of Impairment	<u>n/a</u>		
TMDL Status	<u>n/a</u>	Name	<u>n/a</u>
Nearest Downstream Public Water Supply Intake	<u>PA American Water Company – Aldrich (5020039)</u>		
PWS Waters	<u>Monongahela River</u>	Flow at Intake (cfs)	<u>550</u>
PWS RMI	<u>25.3</u>	Distance from Outfall (mi)	<u>17</u>

Changes Since Last Permit Issuance: none



**Development of Effluent Limitations**

<b>Outfall No.</b>	001	<b>Design Flow (MGD)</b>	Variable
<b>Latitude</b>	40° 07' 57.92"	<b>Longitude</b>	-79° 59' 59.53"
<b>Wastewater Description:</b> Final stormwater discharge to Pigeon Creek from ECP #2—sources monitored at IMPs 101, 201, and 301			

**001.A. Technology-Based Limitations**

Consistent with 25 Pa. Code § 92a.61(h) and DEP’s policy for permitting storm water discharges associated with industrial activities, Outfall 001 will be subject to PAG-03 General Stormwater permit conditions as a minimum requirement. The facility operates under the primary SIC code 5541—Gasoline Service Stations. The current permit applies benchmarks and permit conditions for PAG-03 Appendix J—Additional Facilities. The most similar corresponding appendix of the 2023 PAG-03 that would apply to the facility is Appendix L—Land Transportation and Petroleum Stations and Terminals. Appendix L has BMPs that reflect the operation of a diked aboveground fuel storage area, a truck wash, and oil/water separator. Implementing these BMPs lacking in Appendix J will result in better overall stormwater quality at the facility. Reporting requirements applicable to stormwater discharges are shown in Table 1 below. Along with the monitoring requirements, sector specific BMPs included in Appendix L of the PAG-03 will also be included in Part C of the Draft Permit.

**Table 1. PAG-03 Appendix L 2023 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

The benchmark values are not effluent limitations and exceedances do not constitute permit violations. However, if sampling demonstrates exceedances of benchmark values for two consecutive monitoring periods, then Pilot must submit a corrective action plan within 90 days of the end of the monitoring period triggering the plan. The corrective action plan requirement and the benchmark values will be specified in a condition in Part C of the permit.

MBAS (Methylene Blue Active Substances—Surfactants) will continue to be monitored at Outfall 001 in accordance with the current permit due to potential contributions of surfactants in excess/residual wash waters from the catch basin adjacent to the truck wash building that contributes stormwater to ECP #1. There are no benchmark values for surfactants, which comprise a large class of chemicals with varying levels of aquatic toxicity. To the extent that any detergents used in truck washing may flow to waters of the Commonwealth through ECP #1 and Outfall 001, Pilot should use products that comply with EPA’s Safer Choice Criteria—see Attachment A to this Fact Sheet (<https://www.epa.gov/saferchoice/safer-choice-criteria-surfactants>).

Stormwater quality data submitted through eDMR shows that Total BTEX (Total Benzene, Ethylbenzene, Toluene, and Xylenes) is present in the effluent water from the oil/water separator at IMP 101. Since the oil/water separator is not appropriate treatment technology for volatile organics, a reporting requirement will be included for Total BTEX at Outfall 001 to monitor their natural attenuation through volatility after retention time in ECP #1 and ECP #2.

The existing permit requires monitoring and reporting of pH, and Pa. Code § 95.2(1) establishes an acceptable pH of not less than 6 and not greater than 9 for industrial wastes. The past two years of eDMR data from both Outfall 001 and IMP 101, the only monitoring points that require pH, report a minimum pH of 6.2 and a maximum pH of 7.7. This type of facility typically does not have high potential to discharge alkaline waste through stormwater like Appendix N facilities that have established pH benchmarks under the PAG-03 General Permit for Industrial Stormwater i.e. concrete batch plants. Considering this information, monitoring of pH will no longer be required since pH is not thought to be a pollutant of concern at this facility.

Monitoring and reporting of flow will be required pursuant to the existing permit and 25 Pa. Code § 92a.61(h).

**001.B. Water Quality-Based Limitations**

Water quality analyses are typically performed under low-flow (Q7-10) stream conditions. Stormwater discharges occur at variable flow 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. Even though no mathematical modeling is performed, conditions in Part C of the permit will ensure compliance with water quality standards through a combination of best management practices including pollution prevention and exposure minimization, good housekeeping, erosion and sediment control, and spill prevention and response.

**001.C. Proposed Effluent Limitations and Monitoring Requirements**

The proposed effluent limitations and monitoring requirements for Outfall 001 are displayed in Table 2 below.

**Table 2. Proposed effluent limitations and monitoring requirements**

Parameter	Daily Maximum (mg/L)	Benchmark Value (mg/L)	Monitoring Frequency	Sample Type	Basis
Flow (GPM)	Report	XXX	1/6 Months	Estimate	25 Pa. Code § 92a.61(h)
Total Nitrogen	Report	XXX	1/6 Months	Grab	25 Pa. Code § 92a.61(h)
Total Phosphorus	Report	XXX	1/6 Months	Grab	25 Pa. Code § 92a.61(h)
TSS	Report	100	1/6 Months	Grab	25 Pa. Code § 92a.61(h)
Oil & Grease	Report	30	1/6 Months	Grab	25 Pa. Code § 92a.61(h)
Total BTEX	Report	XXX	1/6 Months	Grab	25 Pa. Code § 92a.61(h)
MBAS	Report	XXX	1/6 Months	Grab	25 Pa. Code § 92a.61(h)

**Development of Effluent Limitations**

<b>IMP No.</b>	101	<b>Design Flow (MGD)</b>	Variable
<b>Latitude</b>	40° 07' 54.09"	<b>Longitude</b>	-80° 00' 07.34"
<b>Wastewater Description:</b> Treated stormwater runoff from diesel fueling island, diesel delivery area, and storage tank containment dike treated by an oil/water separator			

IMP 101 will be identified in the permit as the compliance location for effluent limits on the site’s stormwater that is treated by an oil/water separator (Sampling Manhole #S2). Effluent limits are imposed at IMP 101 rather than another monitoring location because 40 CFR § 125.3(f) prohibits compliance with technology-based treatment requirements using “non-treatment” techniques such as flow augmentation (i.e., dilution). Since the treated wastewaters monitored at IMP 101 combine with untreated storm water before the final discharge location (Outfall 001), IMP 101 is the only point at which compliance with applicable effluent limits can be determined without the interference of other wastewaters. This rationale is consistent with 40 CFR § 122.45(h), which allows for the imposition of effluent limitations on internal waste streams in these circumstances.

**101.A. Technology-Based Limitations**

Regulatory Effluent Standards

The water treated by the oil/water separator is an oil-bearing wastewater, which is subject to oil and grease limits from 25 Pa. Code § 95.2(2). The limits represent the treatment effectiveness of a well-operated and maintained gravity oil/water separator. The existing permit requires monitoring and reporting of pH, but pH is not thought to be a pollutant of concern at this facility so monitoring of pH will no longer be required—see Section 001.A for a discussion of this. Monitoring and reporting of flow will be required pursuant to the existing permit and 25 Pa. Code § 92a.61(h).

**Table 3. Regulatory Effluent Standards**

Parameter	Concentration (mg/L)	
	Average	Maximum Daily
Flow (GPM)	Report	Report
Oil and Grease	15.0	30.0

Other Monitoring Requirements

Reported eDMR data shows detectable levels of Total BTEX at IMP 101. Monitoring and reporting of Total BTEX will continue to be required in accordance with the existing permit since the oil/water separator is not appropriate treatment technology for volatile organics.

**101.B. Water Quality-Based Limitations**

Except in certain circumstances, IMPs are not subject to WQBELs because water quality criteria compliance evaluations would not be conducted for internally monitored sources until they discharge to waters of the Commonwealth. No WQBELs are proposed for this IMP.

**101.C. Effluent Limitations and Monitoring Requirements for Internal Monitoring Point 101**

Effluent limits imposed at IMP 101 are the more stringent of TBELs, WQBELs, regulatory effluent standards, and monitoring requirements as summarized in Table 4.

Table 4. Effluent Limits and Monitoring Requirements for IMP 101

Parameter	Mass (pounds)		Concentration (mg/L)			Basis
	Average Quarterly	Daily Maximum	Average Quarterly	Daily Maximum	Instant Maximum	
Flow (GPM)	Report	Report	—	—	—	25 Pa. Code § 92a.61(h)
Oil & Grease	—	—	15.0	30.0	—	25 Pa. Code § 95.2(2)
BTEX, Total	—	—	—	Report	—	25 Pa. Code § 92a.61(h)

Monitoring frequencies and sample types are imposed based on those in the existing permit and on Chapter 6, Table 6-4 of DEP's Permit Writers' Manual. Total BTEX will require 1/quarter grab sampling. Flow should be estimated at the time of sampling. The existing permit requires 2/quarter grab sampling for oil and grease with samples collected during the same calendar month to evaluate compliance with the 15 mg/L average limit. Flow should be estimated 2/quarter when samples are collected for oil and grease.



**Development of Effluent Limitations**

<b>IMP No.</b>	201	<b>Design Flow (MGD)</b>	Variable
<b>Latitude</b>	40° 07' 55.04"	<b>Longitude</b>	-80° 00' 08.39"
<b>Wastewater Description:</b> Treated stormwater runoff from diesel fueling island, diesel delivery area, and storage tank containment dike treated by an oil/water separator and untreated stormwater runoff from truck wash area, truck scale area, and diesel fueling island			

**201.A. Technology-Based Limitations**

IMP 201 will be subject to the same monitoring requirements as Outfall 001 as explained in Section 001.A. Stormwater quality data submitted through eDMR shows that benzene, ethylbenzene, toluene, and xylenes (through the parameter Total BTEX) are present in the effluent water from the oil/water separator at IMP 101. Since the oil/water separator is not appropriate treatment technology for volatile organics, a reporting requirement will be included for Total BTEX at IMP 201 to monitor their natural attenuation through volatility after retention time in ECP #1. There are no benchmark values for BTEX. MBAS will continue to be monitored at IMP 201 in accordance with the current permit due to potential contributions of surfactants in excess/residual wash waters from the catch basin adjacent to the truck wash building that contributes stormwater to ECP #1. There are no benchmark values for MBAS.

**201.B. Water Quality-Based Limitations**

Except in certain circumstances, IMPs are not subject to WQBELs because water quality criteria compliance evaluations would not be conducted for internally monitored sources until they discharge to waters of the Commonwealth. No WQBELs are proposed for this IMP.

**201.C. Proposed Effluent Limitations and Monitoring Requirements**

The proposed effluent limitations and monitoring requirements for IMP 201 are displayed in Table 5 below.

**Table 5. Proposed effluent limitations and monitoring requirements**

Parameter	Daily Maximum (mg/L)	Benchmark Value (mg/L)	Monitoring Frequency	Sample Type	Basis
<b>Flow (GPM)</b>	Report	XXX	1/6 Months	Estimate	25 Pa. Code § 92a.61(h)
<b>Total Nitrogen</b>	Report	XXX	1/6 Months	Grab	25 Pa. Code § 92a.61(h)
<b>Total Phosphorus</b>	Report	XXX	1/6 Months	Grab	25 Pa. Code § 92a.61(h)
<b>TSS</b>	Report	100	1/6 Months	Grab	25 Pa. Code § 92a.61(h)
<b>Oil &amp; Grease</b>	Report	30	1/6 Months	Grab	25 Pa. Code § 92a.61(h)
<b>Total BTEX</b>	Report	XXX	1/6 Months	Grab	25 Pa. Code § 92a.61(h)
<b>MBAS</b>	Report	XXX	1/6 Months	Grab	25 Pa. Code § 92a.61(h)

**Development of Effluent Limitations**

IMP No. 301 Design Flow (MGD) Variable  
 Latitude 40° 07' 56.45" Longitude -80° 00' 00.60"  
 Wastewater Description: Untreated stormwater runoff from gasoline fueling island, car parking lot, and road entrance

**301.A. Technology-Based Limitations**

IMP 301 will be subject to the 2023 PAG-03 Appendix L permit conditions as explained in Section 001.A. Monitoring and reporting of flow will be required pursuant to the existing permit and 25 Pa. Code § 92a.61(h).

**301.B. Water Quality-Based Limitations**

Except in certain circumstances, IMPs are not subject to WQBELs because water quality criteria compliance evaluations would not be conducted for internally monitored sources until they discharge to waters of the Commonwealth. No WQBELs are proposed for this IMP.

**301.C. Proposed Effluent Limitations and Monitoring Requirements**

The proposed effluent limitations and monitoring requirements for IMP 301 are displayed in Table 6 below.

**Table 6. Proposed effluent limitations and monitoring requirements**

Parameter	Daily Maximum (mg/L)	Benchmark Value (mg/L)	Monitoring Frequency	Sample Type	Basis
Flow (GPM)	Report	XXX	1/6 Months	Estimate	25 Pa. Code § 92a.61(h)
Total Nitrogen	Report	XXX	1/6 Months	Grab	25 Pa. Code § 92a.61(h)
Total Phosphorus	Report	XXX	1/6 Months	Grab	25 Pa. Code § 92a.61(h)
TSS	Report	100	1/6 Months	Grab	25 Pa. Code § 92a.61(h)
Oil & Grease	Report	30	1/6 Months	Grab	25 Pa. Code § 92a.61(h)

Tools and References Used to Develop Permit	
<input type="checkbox"/>	WQM for Windows Model (see Attachment [redacted])
<input type="checkbox"/>	Toxics Management Spreadsheet (see Attachment [redacted])
<input type="checkbox"/>	TRC Model Spreadsheet (see Attachment [redacted])
<input type="checkbox"/>	Temperature Model Spreadsheet (see Attachment [redacted])
<input type="checkbox"/>	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
<input type="checkbox"/>	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
<input type="checkbox"/>	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
<input type="checkbox"/>	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
<input type="checkbox"/>	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
<input type="checkbox"/>	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
<input type="checkbox"/>	Pennsylvania CSO Policy, 386-2000-002, 9/08.
<input type="checkbox"/>	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
<input type="checkbox"/>	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
<input type="checkbox"/>	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
<input type="checkbox"/>	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
<input type="checkbox"/>	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
<input type="checkbox"/>	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
<input type="checkbox"/>	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
<input type="checkbox"/>	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
<input type="checkbox"/>	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
<input type="checkbox"/>	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
<input type="checkbox"/>	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
<input type="checkbox"/>	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
<input type="checkbox"/>	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
<input type="checkbox"/>	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
<input type="checkbox"/>	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
<input type="checkbox"/>	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
<input type="checkbox"/>	Design Stream Flows, 386-2000-003, 9/98.
<input type="checkbox"/>	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
<input type="checkbox"/>	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
<input type="checkbox"/>	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
<input checked="" type="checkbox"/>	SOP: No. BCW-PMT- 032 Establishing Effluent Limitations for Individual Industrial Permits
<input checked="" type="checkbox"/>	Other: USGS StreamStats Report (see Attachment B)

## Attachment A

Safer Choice Criteria for Surfactants | Safer Choice | US EPA

An official website of the United States government.

We've made some changes to EPA.gov. If the information you are looking for is not here, you may be able to find it on the EPA Web Archive or the January 19, 2017 Web Snapshot.

Close



# Safer Choice Criteria for Surfactants

Surfactants in cleaning products are distinguished by their:

- rate of biodegradation,
- degradation products, and
- level of aquatic toxicity.

The Safer Choice Criteria for Surfactants combine these hazard characteristics, and require that surfactants with higher aquatic toxicity demonstrate a faster rate of biodegradation without degradation to products of concern. Surfactants that meet the Safer Choice Criteria are acceptable for use in a Safer Choice product; surfactants in products which typically bypass sewage treatment must meet the [Criteria for Environmental Fate & Toxicity for Chemicals in Direct Release Products](#).

The surfactants listed on the Safer Chemical Ingredients List (SCIL) include mixtures with varying chain lengths, degrees of branching, and numbers of ethoxyl (EO) and propoxyl (PO) groups. These structural characteristics determine the aquatic toxicity and rate of biodegradation of the chemical. Safer Choice may require additional structural information and/or test data to assess surfactants listed on SCIL for use in labeled products.

### Standard Surfactant Criteria

Acute Aquatic Toxicity (L/E/IC50 Value) <sup>1</sup>	Rate of Biodegradation
≤1 ppm	May be acceptable if biodegradation <sup>2</sup> occurs within a 10-day window without products of concern <sup>3</sup>
>1 ppm and ≤10 ppm	Biodegradation <sup>2</sup> occurs within a 10-day window without products of concern <sup>3</sup>
>10 ppm	Biodegradation <sup>2</sup> occurs within 28 days without products of concern <sup>3</sup>

1. In general, there is a predictable relationship between acute aquatic toxicity and chronic aquatic toxicity for organic chemicals (i.e., chemicals that have high acute aquatic toxicity also have high chronic aquatic toxicity). Since acute aquatic toxicity data are more readily available, the Safer Choice Criteria use these data to screen chemicals that may be toxic to aquatic life (see Sections 5.9 and 6.8 of the [Safer Choice Master Criteria for Safer Ingredients](#)).

2. Generally, >60% mineralization (to CO<sub>2</sub> and water) in 28 days (see Sections 5.9 and 6.8 of the [Safer Choice Master Criteria for Safer Ingredients](#)).

3. Products of concern are compounds with high acute aquatic toxicity (L/E/IC50 =10 ppm) and a slow rate of biodegradation (greater than 28 days).

### Attachment B

## StreamStats Report: Outfall 001 Discharge Point

Region ID: PA  
Workspace ID: PA20230818193455996000  
Clicked Point (Latitude, Longitude): 40.13290, -80.00018  
Time: 2023-08-18 15:35:20 -0400



 Collapse All

#### ➤ Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	36.8	square miles
ELEV	Mean Basin Elevation	1139	feet
PRECIP	Mean Annual Precipitation	39	inches



➤ Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	36.8	square miles	2.26	1400
ELEV	Mean Basin Elevation	1139	feet	1050	2580

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

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	1.63	ft <sup>3</sup> /s	43	43
30 Day 2 Year Low Flow	2.66	ft <sup>3</sup> /s	38	38
7 Day 10 Year Low Flow	0.681	ft <sup>3</sup> /s	66	66
30 Day 10 Year Low Flow	1.11	ft <sup>3</sup> /s	54	54
90 Day 10 Year Low Flow	1.88	ft <sup>3</sup> /s	41	41

*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/>)**