pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0046019**
Facility Type	**Industrial**	APS ID	**1090098**
Major / Minor	**Minor**	Authorization ID	**1442682**

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

Applicant and Facility Information

Applicant Name	**Pilot Travel Centers LLC**	Facility Name	**Flying J Travel Plaza No. 620**
Applicant Address	5508 Lonas Drive	Facility Address	122 Fitz Henry Road
	Knoxville, TN 37909-3221		Smithton, PA 15479-8707
Applicant Contact	Joey Cupp, Sr. Director of Environmental	Facility Contact	***same as applicant***
Applicant Phone	(865) 474-2826	Facility Phone	***same as applicant***
Applicant Email	joey.cupp@pilottravelcenters.com	Facility Email	***same as applicant***
Client ID	135750	Site ID	250748
SIC Code	5541	Municipality	South Huntingdon Township
SIC Description	Retail Trade - Gasoline Service Stations	County	Westmoreland
Date Application Received	May 30, 2023	EPA Waived?	Yes
Date Application Accepted		If No, Reason	
Purpose of Application	Renewal of an NPDES permit for existing discharges of treated sanitary wastewater and treated and untreated storm water associated with industrial activities.		

Summary of Review

Pilot Travel Centers LLC (Pilot) submitted an application dated May 26, 2023 to renew the NPDES permit for discharges of treated sewage and storm water associated with industrial activities from Flying J Travel Plaza No. 620 in Smithton, PA. The current permit was issued on November 19, 2018 with an effective date of December 1, 2018 and an expiration date of November 30, 2023. The renewal application was due by June 3, 2023. DEP received the renewal application on May 30, 2023. The application was timely, so the terms and conditions of the current permit will be continued automatically past the expiration date if the permit is not renewed before November 30, 2023.

On April 17, 2017, Pilot submitted a Water Quality Management (WQM) permit application to authorize the construction and operation of a new sewage treatment plant at Travel Plaza No. 620. WQM Permit 6517401 was issued on October 10, 2017 for the new sewage treatment plant including a lift station in the existing equalization basin; a new 9,000-gallon flow equalization tank, a 10,724-gallon pre-anoxic tank; two aeration tanks with a total capacity of 21,488 gallons; a 2,375-gallon post-anoxic tank; a 1,238-gallon post-aeration tank with fine bubble diffusers; a new 5,100-gallon sludge holding tank with coarse bubble diffusers; an Aqua Minidisk Model ADFSP- 1 1 x 2/1 E-PC pile cloth media filter for tertiary filtration; and a Trojan UV 300 PTP Model 3025-PTP ultraviolet disinfection unit. Construction of the new system was complete on or about April 12, 2018. The new sewage treatment plant was intended to address effluent violations associated with operation of the old sewage treatment plant.

Notwithstanding construction of a new sewage treatment plant, Pilot has continued to report effluent violations at Outfall 001. In response to a Notice of Violation from DEP dated April 19, 2023, Pilot explained the causes of the effluent violations and planned corrective actions in a May 18, 2023 letter as follows:

> Over the past 3 years the WWTP has suffered form 2 total power losses in which repairs or delivery of a backup power supply took several hours causing a breakdown of plant biological processes. Due to the weather and temperatures of these times of year it took several months to get the WWTP Biological process back into proper

Approve	Deny	Signatures	Date
✓		Ryan C. Decker, P.E. / Environmental Engineer	September 15, 2023
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	September 30, 2023

Summary of Review

working order resulting in violations of effluent limitations. Also, a loss of a Mixing Pump, which is extremely critical to the [plant's] operation, as well as other mechanical failures of equipment, have caused numerous violations of effluent limitations.

Corrective Action for Outfall 001:

In response to the effluent limitation violations, the following steps and measures have been undertaken to ensure compliance [with] NPDES Permit Limitation[s]:

Currently, we have received quotes from Westmoreland Electric Company on replacement of a feeder electric line running from the Flying J Store to the WWTP. This was identified as a potential problem area as to the power disruptions we have experienced. We are awaiting a quote from West Penn Power to possibly install a dedicated service line running from Motordrome Road directly to the WWTP Building to ensure our power needs. Westmoreland Electric is also quoting a standby generator or a quick connect setup if a portable power supply needs to be brought in during an emergency. We are receiving quotes on backup equipment such as mixing pumps to ensure we have equipment ready if [a] failure occurs.

In [regard] to the Total Nitrogen & Total Phosphorus violations, a backup Nitrate Recycle pump is now available and adjustments to timing on this [pump's] on/off cycle were done to ensure effluent limitations are met. Spare repair parts are on hand [for] the peristaltic pumps used for our chemical feed to aid in Total Phosphorus removal. We are also implementing additional site testing to measure Total Nitrogen & Total Phosphorus levels to ensure compliance. These procedures are to be implemented [within] 30 days by the plant operator.

On July 25, 2023, DEP visited the site to discuss the effluent exceedances and treatment plant operations and prepared an assessment report with recommendations to improve treatment plant efficiency and effluent limit compliance. That assessment is attached to this Fact Sheet as Attachment A.

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.

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.024 (avg), 0.0403 (max)
Latitude	40° 10' 19.55"	Longitude	-79° 43' 53.46"
Quad Name	Smithton	Quad Code	1708
Wastewater Description:	Treated sanitary wastewater		
Receiving Waters	Unnamed tributary to Youghiogheny River (via drainage swale)	Stream Code	37856 (point of first use)
NHD Com ID	69914047	RMI	1.81 (point of first use)
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	19-D	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Oil and Grease		
Source(s) of Impairment	Highway/Road/Bridge Runoff (Non-Construction Related)		
TMDL Status	None	Name	
Nearest Downstream Public Water Supply Intake	McKeesport Municipal Water Authority		
PWS ID	5020025	PWS Withdrawal (MGD)	10.0
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	460
PWS RMI	1.30	Distance from Outfall (mi)	approx. 26

Changes Since Last Permit Issuance: A new sewage treatment plant was constructed.

Other Comments: The latitude and longitude of Outfall 001 was adjusted by DEP to more accurately identify the discharge location.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	Variable
Latitude	40° 10' 19.80"	Longitude	-79° 43' 56.20"
Quad Name	Smithton	Quad Code	1708
Wastewater Description:	Storm water runoff from the diesel fuel island treated by an oil/water separator		
Receiving Waters	Unnamed tributary to Youghiogheny River (via drainage swale)	Stream Code	37856 (point of first use)
NHD Com ID	69914047	RMI	1.81 (point of first use)
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	19-D	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Oil and Grease		
Source(s) of Impairment	Highway/Road/Bridge Runoff (Non-Construction Related)		
TMDL Status	None	Name	
Nearest Downstream Public Water Supply Intake	McKeesport Municipal Water Authority		
PWS ID	5020025	PWS Withdrawal (MGD)	10.0
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	460
PWS RMI	1.30	Distance from Outfall (mi)	approx. 26

Changes Since Last Permit Issuance: None

Other Comments: The latitude and longitude of Outfall 001 was adjusted by DEP to more accurately identify the discharge location.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	003	Design Flow (MGD)	Variable
Latitude	40° 10' 19.42"	Longitude	-79° 43' 52.74"
Quad Name	Smithton	Quad Code	1708
Wastewater Description:	Storm water runoff from parking lot areas treated by an oil/water separator		
Receiving Waters	Unnamed tributary to Youghiogheny River (via drainage swale)	Stream Code	37856 (point of first use)
NHD Com ID	69914047	RMI	1.81 (point of first use)
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	19-D	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Oil and Grease		
Source(s) of Impairment	Road Runoff		
TMDL Status	None	Name	

Nearest Downstream Public Water Supply Intake	McKeesport Municipal Water Authority		
PWS ID	5020025	PWS Withdrawal (MGD)	10.0
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	460
PWS RMI	1.30	Distance from Outfall (mi)	approx. 26

Changes Since Last Permit Issuance: None

Other Comments: The latitude and longitude of Outfall 001 was adjusted by DEP to more accurately identify the discharge location.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	004	Design Flow (MGD)	Variable
Latitude	40° 10' 10.25"	Longitude	-79° 43' 53.35"
Quad Name	Smithton	Quad Code	1708
Wastewater Description:	Storm water runoff from a parking lot		
Receiving Waters	Drainage swale to unnamed tributary to Youghiogheny River	Stream Code	37856
NHD Com ID	69914047	RMI	1.45
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	19-D	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Oil and Grease		
Source(s) of Impairment	Road Runoff		
TMDL Status	None	Name	
Nearest Downstream Public Water Supply Intake	McKeesport Municipal Water Authority		
PWS ID	5020025	PWS Withdrawal (MGD)	10.0
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	460
PWS RMI	1.30	Distance from Outfall (mi)	approx. 26

Changes Since Last Permit Issuance: None

Other Comments: The latitude and longitude of Outfall 001 was adjusted by DEP to more accurately identify the discharge location.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	005	Design Flow (MGD)	Variable
Latitude	40° 10' 9.50"	Longitude	-79° 43' 55.32"
Quad Name	Smithton	Quad Code	1708
Wastewater Description:	Storm water runoff from a parking lot		
Receiving Waters	Drainage swale to unnamed tributary to Youghiogheny River	Stream Code	37856
NHD Com ID	69914047	RMI	1.45
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	19-D	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Oil and Grease		
Source(s) of Impairment	Road Runoff		
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	McKeesport Municipal Water Authority		
PWS ID	5020025	PWS Withdrawal (MGD)	10.0
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	460
PWS RMI	1.30	Distance from Outfall (mi)	approx. 26

Changes Since Last Permit Issuance: None

Other Comments: The latitude and longitude of Outfall 001 was adjusted by DEP to more accurately identify the discharge location.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	006	Design Flow (MGD)	Variable
Latitude	40° 10' 11.80"	Longitude	-79° 43' 56.75"
Quad Name	Smithton	Quad Code	1708
Wastewater Description:	Storm water runoff from a parking lot		
Receiving Waters	Drainage swale to unnamed tributary to Youghiogheny River	Stream Code	37856
NHD Com ID	69914047	RMI	1.45
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	19-D	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Oil and Grease		
Source(s) of Impairment	Road Runoff		
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	McKeesport Municipal Water Authority		
PWS ID	5020025	PWS Withdrawal (MGD)	10.0
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	460
PWS RMI	1.30	Distance from Outfall (mi)	approx. 26

Changes Since Last Permit Issuance: None

Other Comments: The latitude and longitude of Outfall 001 was adjusted by DEP to more accurately identify the discharge location.

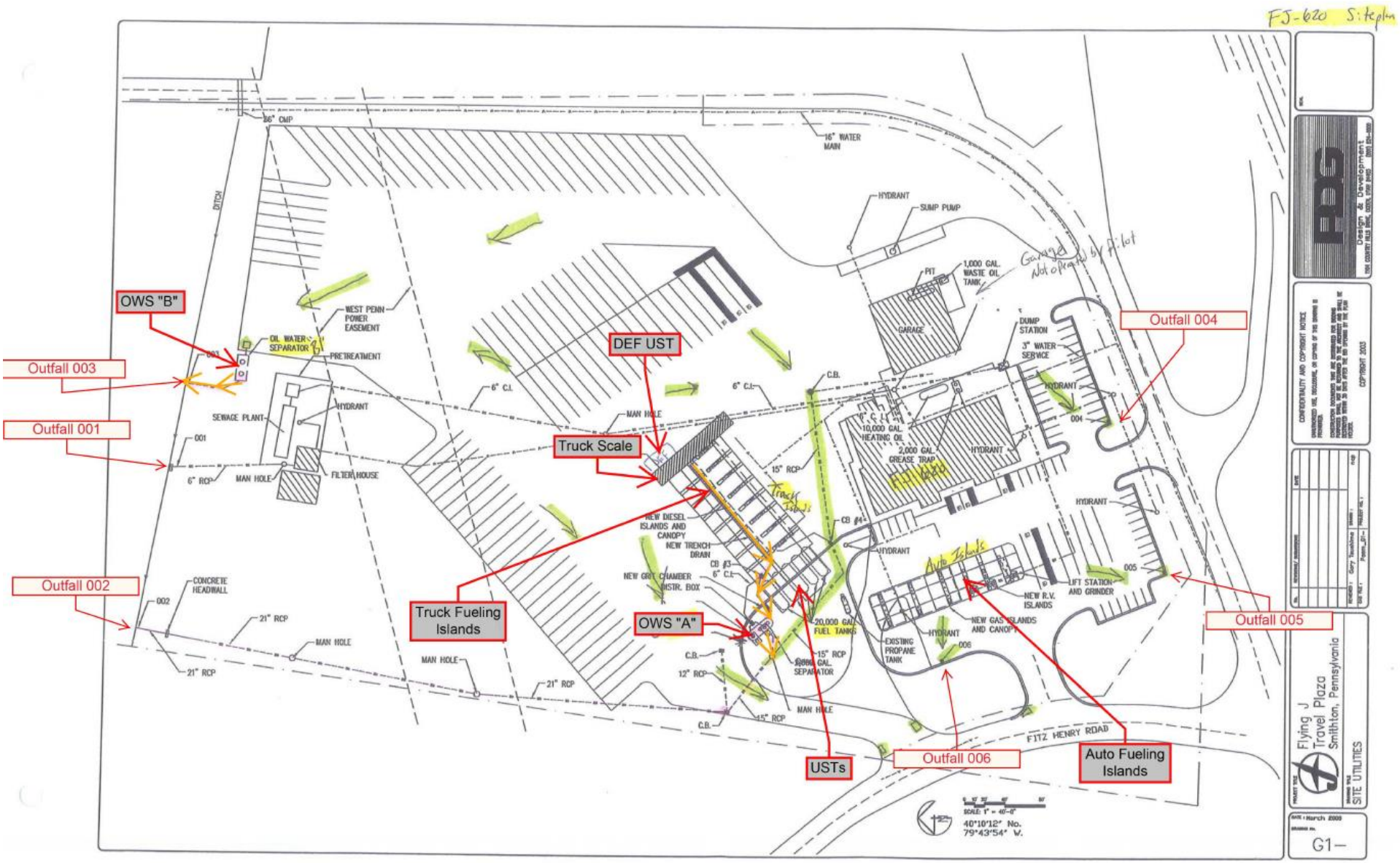

FJ-620 Site plan
OWS "B"
Outfall 003
Outfall 001
Outfall 002
Truck Fueling Islands
DEF UST
Truck Scale
OWS "A"
USTs
Outfall 004
Outfall 005
Outfall 006
Auto Fueling Islands
Flying J Travel Plaza
Smithton, Pennsylvania
SITE UTILITIES
G1—
40°10'12" No.
79°43'54" W.

Figure 1

Image Source and Date: Google Earth Pro; October 8, 2020. Annotations by DEP.

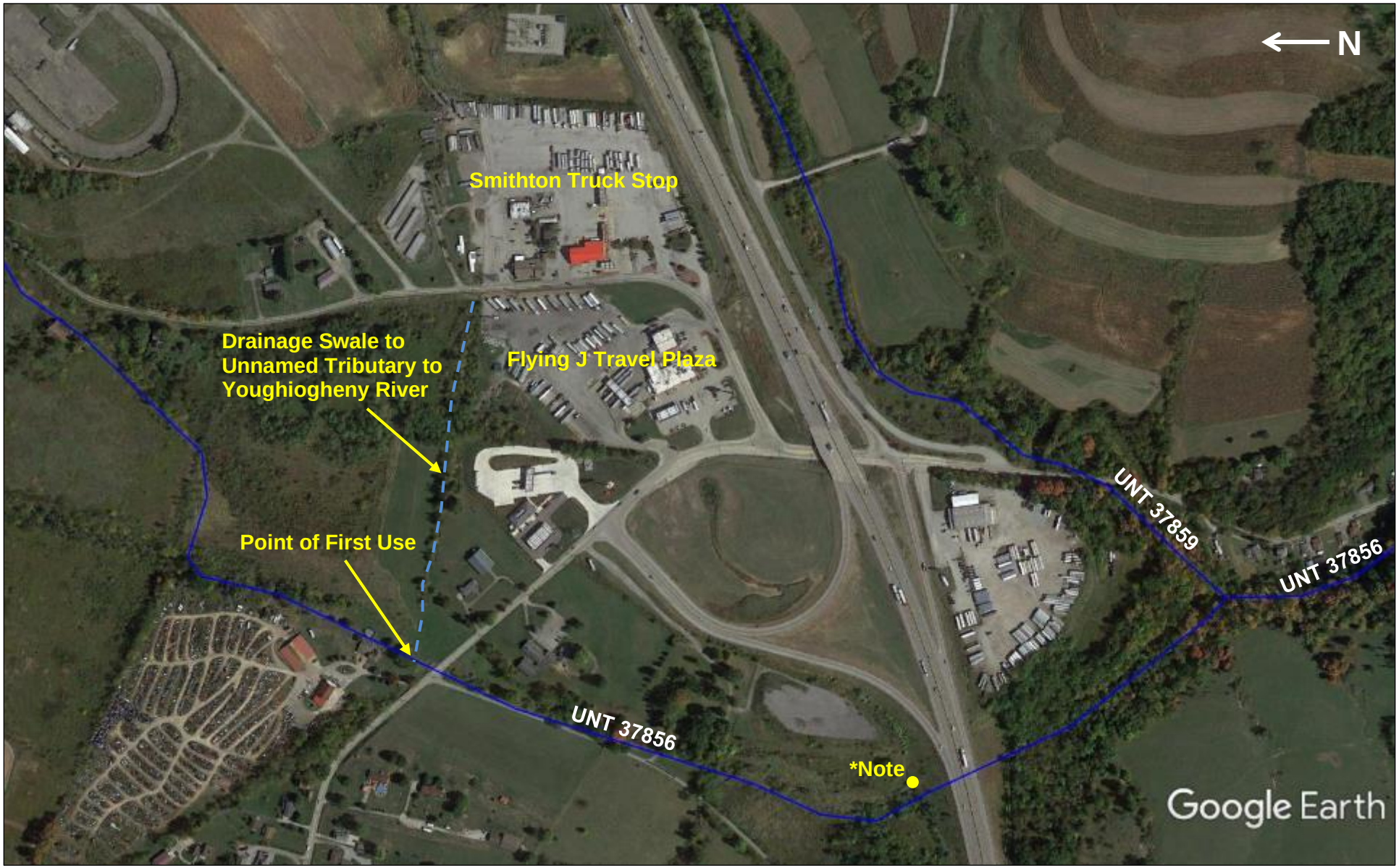


Image Source and Date: Google Earth Pro; October 8, 2020. Annotations by DEP.

***Note: Based on drainage features constructed by PennDOT in the vicinity of the Smithton I-70 interchange, this is the most likely location where Outfalls 004, 005, and 006 discharge to a listed water of the Commonwealth – River Mile Index 1.45 on Unnamed Tributary 37856.**

Treatment Facility Summary				
Treatment Facility: Flying J Travel Plaza No. 620 STP				
WQM Permit No.	**Issuance Date**	**Purpose**		
6517401	October 10, 2017	Permit issued to Pilot Travel Centers LLC by the Pennsylvania DEP for a new sewage treatment plant to replace the existing sewage treatment plant authorized by WQM 6577423. The new plant includes a lift station in the existing equalization basin; a new 9,000-gallon flow equalization tank, a 10,724-gallon pre-anoxic tank; two aeration tanks with a total capacity of 21,488 gallons; a 2,375-gallon post-anoxic tank; a 1,238-gallon post-aeration tank with fine bubble diffusers; a new 5,100-gallon sludge holding tank with coarse bubble diffusers; an Aqua Minidisk Model ADFSP- 1 1 x 2/1 E-PC pile cloth media filter for tertiary filtration; and a Trojan UV 300 PTP Model 3025-PTP ultraviolet disinfection unit.		
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Tertiary	Equalization, aeration, clarification, tertiary filtration, and disinfection	Ultraviolet	0.02
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.02	50.1	Not Overloaded	N/A	Combination of methods

Treatment Facility Summary				
Treatment Facility: Oil/water separators				
WQM Permit No.	**Issuance Date**	**Purpose**		
6578202	March 30, 1978	Permit issued to Union Oil Company of California by the Pennsylvania DER for one 1,000-gallon oil/water separator for wash water from garage floor drains and two 2,000-gallon oil/water separators in parallel for runoff from the diesel fuel islands.		
6578202 T-1	August 31, 1995	Permit transferred from Union Oil Company of California to National Auto/Truckstops, Inc.		
6578202 T-2	March 26, 1998	Permit transferred from National Auto/Truckstops, Inc. to J.D.Q. LLC.		
6578202 A-1, T-3	February 4, 2020	Permit issued to Pilot Travel Centers LLC for previously installed (but not permitted) facilities including one open-grate grit chamber; one 15,000-gallon oil/water separator (i.e., fiberglass baffle tank) installed in 2007 and replaced in 2009; and one 2,000-gallon grease trap. The 15,000-gallon oil/water separator and its predecessors installed in 2007 and 2009 (and potentially another undocumented separator installed after 1978 and before 2007) replaced the two original 2,000-gallon separators for runoff from the diesel fuel island. This amendment also documented previously unprocessed transfers from May 5, 2006 (J.D.Q. LLC to North East LLC) and May 25, 2011 (North East LLC to Pilot Travel Centers LLC).		
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Industrial	Primary	Gravity separation	N/A	
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
	N/A	Not Overloaded	N/A	N/A

Treatment Facility Summary		
Treatment Facility: Flying J Travel Plaza No. 620 STP		
WQM Permit No.	**Issuance Date**	**Purpose**
6577423 (Replaced by WQM 6517401)	January 25, 1978	Permit issued to J.D.Q., LLC by the Pennsylvania DER for A 20,000-gpd STP comprised of an equalization/surge tank with a comminutor, sludge holding tank, aeration tank, a clarifier, tertiary rapid sand filters and a chlorine contact tank for disinfection

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Extended Aeration with Solids Removal	Chlorine	0.02

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.02	50.07	Not Overloaded	N/A	Combination of methods

Changes Since Last Permit Issuance: None

Compliance History

DMR Data for Outfall 001 (from May 1, 2022 to April 30, 2023)

Parameter	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22
Flow (MGD) Average Monthly	0.0068	0.0071	0.007	0.006	0.0080	0.0070	0.0090	0.2700	0.2618	0.0070	0.0070	0.0080
Flow (MGD) Daily Maximum	0.005	0.007	0.070	0.0060	0.0080	0.0070	0.0090	0.0090	0.0010	0.012	0.013	0.008
pH (S.U.) Instantaneous Minimum	7.5	7.5	7.5	7.7	7.3	6.5	7.0	7.6	7.6	7.4	6.9	7.0
pH (S.U.) Instantaneous Maximum	7.8	7.7	8.0	8.0	8.7	7.3	7.6	8.0	8.4	7.8	7.7	7.9
DO (mg/L) Instantaneous Minimum	6.2	6.8	6.8	7.8	6.9	9.2	6.9	8.2	6.2	6.5	6.7	6.8
CBOD5 (mg/L) Average Monthly	< 2.00	7.1	< 2.00	7.5	7.5	< 2.00	3.3	1.4	< 2.00	4.1	< 2.00	2.3
CBOD5 (mg/L) Instantaneous Maximum	< 2.00	14.9	< 2.00	12.9	13.0	< 2.0	4.5	0.7	< 2.00	5.6	< 2.00	2.9
TSS (mg/L) Average Monthly	< 5.00	5.7	< 5.0	6.5	< 5.0	6.5	27.0	7.0	5.0	14.0	5.0	9.0
TSS (mg/L) Instantaneous Maximum	< 5.00	7.0	< 5.0	8.0	< 5.0	8.0	46.0	9.0	5.0	20.0	5.0	17.0
Fecal Coliform (No./100 ml) Geometric Mean	2362.0	2.2	7.14	2.0	2.2	12.6	46.0	5.0	5.0	< 1.0	< 5.0	50.0
Fecal Coliform (No./100 ml) Instantaneous Maximum	2420	5.0	51.0	6.0	5.0	158.0	261.0	5.0	5.0	< 1.0	< 5.0	91.0
UV Transmittance (%) Instantaneous Minimum	0.1	0.1	0.1	0.01	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
UV Transmittance (%) Average Monthly	0.1	0.1	0.1	0.01	0.1	0.1	0.1	0.1	0.4	0.03	0.2	0.1
Total Nitrogen (mg/L) Average Monthly	3.4	4.5	4.2	6.1	0.8	1.4	2.4	1.1	1.0	3.7	1.1	22.0
Total Nitrogen (mg/L) Instantaneous Maximum	3.5	4.8	4.6	9.6	0.8	1.6	2.8	1.1	1.0	4.5	1.6	27.0

Parameter	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22
Ammonia (mg/L) Average Monthly	0.4	0.6	0.90	< 0.800	0.9	< 0.800	< 0.800	1.0	< 0.800	0.800	< 0.800	22.0
Ammonia (mg/L) Instantaneous Maximum	0.4	1.0	1.1	< 0.800	1.0	< 0.800	< 0.800	1.1	< 0.800	< 0.800	< 0.800	26.2
Total Phosphorus (mg/L) Average Monthly	0.4	0.5	0.2	0.02	0.2	1.1	2.2	0.2	0.2	0.4	< 0.10	0.20
Total Phosphorus (mg/L) Instantaneous Maximum	0.5	0.6	0.2	0.03	0.2	1.6	2.5	0.2	0.2	0.6	< 0.10	0.40

DMR Data for Outfall 002 (from May 1, 2022 to April 30, 2023)

Parameter	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22
Flow (MGD) Average Monthly	0.0000006	0.000001	0.0000007	0.000007	0.0000006	0.000001	0.0000009	0.0000009	0.000002	0.0000007	0.000001	0.00006
Flow (MGD) Daily Maximum	0.000005	0.00002	0.000006	0.000007	0.000005	0.00002	0.00002	0.000008	0.00002	0.000005	0.00001	0.00001
pH (S.U.) Instantaneous Minimum	6.8	7.3	6.9	7.0	7.0	7.0	7.1	7.1	7.1	7.8	7.8	7.2
pH (S.U.) Instantaneous Maximum	7.1	7.4	7.3	7.3	7.2	7.1	7.3	7.1	7.5	8.0	7.8	8.0
CBOD5 (mg/L) Average Monthly	2.7	13.3	17.9	23.2	20.0	13.3	16.8	19.5	< 4.00	5.4	13.9	19.4
CBOD5 (mg/L) Instantaneous Maximum	3.5	15.2	25.2	38.6	20.0	15.0	26.0	25.3	< 6.00	7.8	14.7	35.0
TSS (mg/L) Average Monthly	72.0	17.5	16.0	48.0	120.0	56.0	90.0	50.0	15.0	33.6	8.2	63.0
TSS (mg/L) Instantaneous Maximum	128.0	28.0	18.0	62.0	131.0	79.0	174.0	84.0	15.0	39.2	9.2	84.0
Oil and Grease (mg/L) Average Monthly	7.9	< 5.0	< 5.0	5.7	15.5	5.9	< 5.0	< 4.8	< 5.00	< 4.7	< 4.7	12.5
Oil and Grease (mg/L) Instantaneous Maximum	10.7	< 5.0	< 5.0	6.0	17.4	6.7	< 5.0	< 4.9	< 5.00	< 4.7	< 4.7	20.0
Nitrate-Nitrite (mg/L) Instantaneous Maximum	1.1	2.8	0.6	0.6	0.9	0.4	2.3	3.9	4.9	< 1.2	1.2	< 1.2

DMR Data for Outfall 003 (from May 1, 2022 to April 30, 2023)

Parameter	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22
Flow (MGD) Average Monthly	0.0000004	0.0000008	0.000004	0.0000008	0.0000004	0.0000007	0.0000006	0.0000006	0.000001	0.0000004	0.0000009	0.00004
Flow (MGD) Daily Maximum	0.0000003	0.000012	0.000004	0.000005	0.000003	0.00001	0.00001	0.000005	0.00001	0.000003	0.000006	0.000009
pH (S.U.) Instantaneous Minimum	6.8	7.1	7.1	7.1	7.1	7.0	7.1	7.0	7.1	7.8	7.8	7.0
pH (S.U.) Instantaneous Maximum	7.1	7.3	7.4	7.4	7.3	7.1	7.3	7.0	7.5	8.0	7.8	7.4
CBOD5 (mg/L) Average Monthly	12.4	5.2	45.8	12.8	69.0	133.0	54.0	20.0	7.9	19.8	12.8	43.0
CBOD5 (mg/L) Instantaneous Maximum	16.5	6.6	85.6	20.5	69.0	227.0	64.0	25.3	9.6	25.0	15.4	42.3
TSS (mg/L) Average Monthly	25.0	44.0	66.0	322.0	371.0	275.0	60.0	58.0	24.0	57.0	14.8	122.0
TSS (mg/L) Instantaneous Maximum	35.0	72.0	88.0	490.0	700.0	404.0	84.0	100.0	26.0	86.0	16.4	214.0
Oil and Grease (mg/L) Average Monthly	< 5.0	< 5.0	< 5.0	8.2	6.4	< 5.0	6.6	< 4.7	< 5.0	< 4.7	< 4.7	7.6
Oil and Grease (mg/L) Instantaneous Maximum	< 5.0	< 5.0	< 5.0	8.9	7.7	< 5.0	8.2	< 4.9	< 5.0	< 4.7	< 4.7	5.2
Nitrate-Nitrite (mg/L) Instantaneous Maximum	< 0.1	2.7	0.3	0.70	0.3	0.3	0.2	< 1.2	0.12	< 1.2	< 1.2	< 1.2

DMR Data for Outfall 004 (from May 1, 2022 to April 30, 2023)

Parameter	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22
Flow (MGD) Daily Maximum	0.0000009	0.000004	0.000001	0.000001	0.0000009	0.000003	0.000004	0.000002	0.000003	0.0000009	0.000002	0.000003
TSS (mg/L) Daily Maximum					28.0						< 4.00	
Oil and Grease (mg/L) Daily Maximum					< 5.0						< 4.7	
Nitrate-Nitrite (mg/L) Daily Maximum	0.30	0.80	0.1	0.2	0.2	0.3	0.8	< 1.2	0.22	< 1.2	< 1.2	< 1.2

DMR Data for Outfall 005 (from May 1, 2022 to April 30, 2023)

Parameter	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22
Flow (MGD) Daily Maximum	0.00000 1	0.00000 5	0.00000 2	0.00000 2	0.00000 1	0.00000 4	0.00000 5	0.00000 2	0.00000 4	0.00000 01	0.00000 3	0.00000 4
TSS (mg/L) Daily Maximum					21.0						27.0	
Oil and Grease (mg/L) Daily Maximum					< 5.0						< 4.7	
Nitrate-Nitrite (mg/L) Daily Maximum	0.4	0.80	0.2	0.2	0.1	< 0.1	0.4	< 1.2	< 0.10	< 1.2	< 1.2	< 1.2

DMR Data for Outfall 006 (from May 1, 2022 to April 30, 2023)

Parameter	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22
Flow (MGD) Daily Maximum	0.00000 1	0.00000 6	0.00000 2	0.00000 2	0.00000 1	0.00000 5	0.00000 6	0.00000 3	0.00000 5	0.00000 1	0.00000 3	0.00000 4
TSS (mg/L) Daily Maximum					< 5.0						15.0	
Oil and Grease (mg/L) Daily Maximum					< 5.0						6.1	
Nitrate-Nitrite (mg/L) Daily Maximum	0.4	0.70	0.3	0.4	0.2	0.3	0.4	< 1.2	< 0.10	< 1.2	< 1.2	< 1.2

Compliance History

Effluent Violations for Outfall 001, from: September 1, 2022 To: July 31, 2023

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	06/30/23	Avg Mo	13.0	mg/L	10.0	mg/L
TSS	07/31/23	Avg Mo	11.5	mg/L	10.0	mg/L
TSS	10/31/22	Avg Mo	27.0	mg/L	10.0	mg/L
TSS	06/30/23	IMAX	21.0	mg/L	20.0	mg/L
TSS	10/31/22	IMAX	46.0	mg/L	20.0	mg/L
Fecal Coliform	04/30/23	Geo Mean	2362.0	No./100 ml	2000	No./100 ml
Total Nitrogen	05/31/23	Avg Mo	6.2	mg/L	5.0	mg/L
Total Nitrogen	01/31/23	Avg Mo	6.1	mg/L	5.0	mg/L
Total Phosphorus	05/31/23	Avg Mo	1.0	mg/L	0.5	mg/L
Total Phosphorus	10/31/22	Avg Mo	2.2	mg/L	0.5	mg/L
Total Phosphorus	06/30/23	Avg Mo	0.7	mg/L	0.5	mg/L
Total Phosphorus	07/31/23	Avg Mo	0.9	mg/L	0.5	mg/L
Total Phosphorus	11/30/22	Avg Mo	1.1	mg/L	0.5	mg/L
Total Phosphorus	05/31/23	IMAX	1.2	mg/L	1.0	mg/L
Total Phosphorus	11/30/22	IMAX	1.6	mg/L	1.0	mg/L
Total Phosphorus	07/31/23	IMAX	1.6	mg/L	1.0	mg/L
Total Phosphorus	10/31/22	IMAX	2.5	mg/L	1.0	mg/L

Summary of Inspections:

Effluent Violations for Outfall 002, from: September 1, 2022 To: July 31, 2023

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	01/31/23	Avg Mo	48.0	mg/L	35.0	mg/L
TSS	12/31/22	Avg Mo	120.0	mg/L	35.0	mg/L
TSS	06/30/23	Avg Mo	39.0	mg/L	35.0	mg/L
TSS	11/30/22	Avg Mo	56.0	mg/L	35.0	mg/L
TSS	10/31/22	Avg Mo	90.0	mg/L	35.0	mg/L
TSS	09/30/22	Avg Mo	50.0	mg/L	35.0	mg/L
TSS	04/30/23	Avg Mo	72.0	mg/L	35.0	mg/L
TSS	10/31/22	IMAX	174.0	mg/L	70.0	mg/L
TSS	11/30/22	IMAX	79.0	mg/L	70.0	mg/L
TSS	09/30/22	IMAX	84.0	mg/L	70.0	mg/L
TSS	12/31/22	IMAX	131.0	mg/L	70.0	mg/L
TSS	04/30/23	IMAX	128.0	mg/L	70.0	mg/L
Oil and Grease	12/31/22	Avg Mo	15.5	mg/L	15.0	mg/L

Summary of Inspections:

Effluent Violations for Outfall 003, from: September 1, 2022 To: July 31, 2023

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
CBOD5	10/31/22	Avg Mo	54.0	mg/L	25.0	mg/L
CBOD5	12/31/22	Avg Mo	69.0	mg/L	25.0	mg/L
CBOD5	11/30/22	Avg Mo	133.0	mg/L	25.0	mg/L
CBOD5	02/28/23	Avg Mo	45.8	mg/L	25.0	mg/L
CBOD5	12/31/22	IMAX	69.0	mg/L	50.0	mg/L

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
CBOD5	11/30/22	IMAX	227.0	mg/L	50.0	mg/L
CBOD5	10/31/22	IMAX	64.0	mg/L	50.0	mg/L
CBOD5	02/28/23	IMAX	85.6	mg/L	50.0	mg/L
TSS	12/31/22	Avg Mo	371.0	mg/L	35.0	mg/L
TSS	10/31/22	Avg Mo	60.0	mg/L	35.0	mg/L
TSS	11/30/22	Avg Mo	275.0	mg/L	35.0	mg/L
TSS	09/30/22	Avg Mo	58.0	mg/L	35.0	mg/L
TSS	07/31/23	Avg Mo	37.0	mg/L	35.0	mg/L
TSS	06/30/23	Avg Mo	126.0	mg/L	35.0	mg/L
TSS	03/31/23	Avg Mo	44.0	mg/L	35.0	mg/L
TSS	01/31/23	Avg Mo	322.0	mg/L	35.0	mg/L
TSS	02/28/23	Avg Mo	66.0	mg/L	35.0	mg/L
TSS	02/28/23	IMAX	88.0	mg/L	70.0	mg/L
TSS	09/30/22	IMAX	100.0	mg/L	70.0	mg/L
TSS	01/31/23	IMAX	490.0	mg/L	70.0	mg/L
TSS	03/31/23	IMAX	72.0	mg/L	70.0	mg/L
TSS	11/30/22	IMAX	404.0	mg/L	70.0	mg/L
TSS	06/30/23	IMAX	182.0	mg/L	70.0	mg/L
TSS	12/31/22	IMAX	700.0	mg/L	70.0	mg/L
TSS	10/31/22	IMAX	84.0	mg/L	70.0	mg/L

Summary of Inspections:

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.0403
Latitude 40° 10' 19.55" **Longitude** -79° 43' 53.46"
Wastewater Description: Treated sanitary wastewater

001.A. Technology-Based Effluent Limitations (TBELs)

25 Pa. Code § 92a.47 – Sewage Permits

Regulations at 25 Pa. Code § 92a.47 specify TBELs and effluent standards that apply to sewage discharges. Section 92a.47(a) requires that sewage be given a minimum of secondary treatment with significant biological treatment that achieves the following:

Table 1. Regulatory TBELs for Sanitary Wastewater

Parameter	Average Monthly (mg/L)	Instant. Maximum (mg/L)	Basis
$CBOD_5$	25	50†	25 Pa. Code § 92a.47(a)(1)
Total Suspended Solids	30	60†	25 Pa. Code § 92a.47(a)(1)
Fecal Coliform (No./100 mL) May 1 – September 30	200 (Geometric Mean)	1,000	25 Pa. Code § 92a.47(a)(4)
Fecal Coliform (No./100 mL) October 1 – April 30	2,000 (Geometric Mean)	10,000	25 Pa. Code § 92a.47(a)(5)
Total Residual Chlorine (if chlorine is used for disinfection)	0.5 (or facility-specific)	1.6 (or facility-specific)	25 Pa. Code § 92a.47(a)(8)
pH (s.u.)	not less than 6.0 and not greater than 9.0		25 Pa. Code § 92a.47(a)(7)

†Value is calculated as two times the monthly average in accordance with Chapter 2 of DEP's Technical Guidance for the Development and Specification of Effluent Limitations.

The limits in Table 1 apply to discharges from Outfall 001 to the extent that they are not superseded by: 1) more stringent limits in the existing permit that will be maintained in the renewed permit pursuant to EPA's anti-backsliding regulation; or 2) more stringent case-by-case TBELs that apply because the facility discharges to a drainage swale with no flow at $Q_{7\text{-}10}$ design conditions.

Existing Effluent Limits and Anti-backsliding

Outfall 001 discharges to a drainage swale that leads to an unnamed tributary (colloquially "Dutch Hollow") to the Youghiogheny River (Stream Code 37856). Effluent limits at Outfall 001 were previously imposed based on DEP's "Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers" [Doc. No. 386-2000-013]. The current permit limits are shown in Table 2.

Table 2. Outfall 001 Effluent Limits in 2018 NPDES Permit

Parameter	Average Monthly (mg/L)	Instant. Maximum (mg/L)	Basis
Flow (MGD)	Report	Report	25 Pa. Code § 92a.61(d)(1)
pH (s.u.)	not less than 6.0 and not greater than 9.0		25 Pa. Code § 92.2c(b)(4)
Dissolved Oxygen	6.0 (minimum)	—	BPJ TBEL for a discharge to a drainage swale
$CBOD_5$	10.0 †	20.0 †	BPJ TBELs for a discharge to a drainage swale
Total Suspended Solids	10.0 †	20.0 †	BPJ TBELs for a discharge to a drainage swale
Fecal Coliform (No./100 mL) May 1 – September 30	200 † (Geometric Mean)	1,000 †	25 Pa. Code § 92a.47(a)(4)
Fecal Coliform (No./100 mL) October 1 – April 30	2,000 † (Geometric Mean)	10,000	25 Pa. Code § 92a.47(a)(5)
UV Light Transmittance (%)	Report (Instant. Min.)	Report (Mo. Average)	25 Pa. Code § 92a.61(b)

Table 2 (cont'd). Outfall 001 Effluent Limits in 2018 NPDES Permit

Parameter	Average Monthly (mg/L)	Instant. Maximum (mg/L)	Basis
Total Nitrogen	5.0	10.0	BPJ TBELs for a discharge to a drainage swale
Ammonia Nitrogen May 1 – Oct 31	3.0 †	6.0 †	WQBELs; 40 CFR 122.44(l)
Ammonia Nitrogen Nov 1 – Apr 30	5.0	10.0	WQBELs; 40 CFR 122.44(l)
Total Phosphorus	0.5	1.0	BPJ TBELs for a discharge to a drainage swale

† Limit was imposed in the facility's NPDES permit issued in 2007 and will be maintained in the renewed permit unless superseded by more stringent requirements.

EPA's anti-backsliding regulation at 40 CFR 122.44(l) provides that:

> (l) *Reissued permits.* (1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued, interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62.)

Pilot made material and substantial alterations by installing a new sewage treatment system (authorized by WQM Permit No. 6517401) in 2017/2018. However, those alterations do not justify the application of less stringent effluent limits because the new system was designed to meet the limits in Table 2 and to address deficiencies with the previous treatment system. As discussed in the following section, more stringent treatment requirements were imposed in the previous permit based on DEP's guidance for discharges to drainage swales. To the extent that existing limits are not superseded by more stringent case-by-case TBELs, the effluent limits in Table 2 will apply at Outfall 001.

Discharges to Drainage Swales

Section V.F (on Page 6) of DEP's "Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers" [Doc. No. 386-2000-013] dated April 12, 2008 states that, for "any new or expanding facility or activity that involves a discharge to a receiving watercourse with little or no natural surface water flow under most conditions" the following requirements apply:

> Advanced Treatment Requirements. For discharges to intermittent and ephemeral streams, drainage channels and swales, and storm sewers, a high degree of treatment is required to compensate for the lack of available assimilative capacity and to minimize the potential for nuisance conditions. Effluent limits will be determined by the regional permit engineer on a case-by-case basis, but for discharges of treated sewage and similar oxygen-consuming wastes, effluent limits should include and be at least as stringent as these, or equivalent:
>
> CBOD5 - 10 mg/L as a monthly average;
> TSS - 10 mg/L as a monthly average;
> Total N - 5 mg/L as a monthly average;
> Dissolved oxygen - minimum 6 mg/L at all times;
> Phosphorus – 0.5 mg/L as a monthly average.
>
> All discharges of treated sewage require effective disinfection sufficient to meet Chapter 93 bacteria criteria at the point of discharge. Seasonal adjustments should not be applied to effluent limits based on the advanced treatment requirements contained in this guidance. As an additional requirement for discharges of treated sewage, sand filters or equivalent are required in all cases. The Department will determine if alternative proposed treatment technologies are at least equivalent to sand filters.

As shown in Table 2, Pilot is currently subject to limits based on the advanced treatment requirements. Pilot was subject to effluent limits for TRC when chlorine was used for disinfection, but the facility switched to ultraviolet light for disinfection when the new sewage treatment plant was constructed. When UV light is used for disinfection DEP requires permittees to report the percent transmittance of UV light to confirm the UV system operates properly.

In accordance with Section I of DEP's "Standard Operating Procedure for Clean Water Program Establishing Effluent Limitations for Individual Sewage Permits" [SOP No. BCW-PMT-033, Version 1.9, March 22, 2021] and under the authority

of 25 Pa. Code § 92a.61(b) an annual reporting requirement for *E. coli* will be added to Outfall 001 because the design flow of the treatment plant is between 0.002 MGD and 0.05 MGD. *E. coli* was recently added to the bacteria water quality criteria in 25 Pa. Code § 93.7(a). The *E. coli* monitoring will be used to determine whether *E. coli* require additional controls.

TBELs for Outfall 001 based on the more stringent of TBELs for sanitary wastewaters and advanced treatment requirements for discharges to intermittent and ephemeral streams, drainage channels and swales, and storm sewers are summarized in Table 3.

Table 3. TBELs for Outfall 001 for Renewed NPDES Permit

Parameter	Average Monthly (mg/L)	Instant. Maximum (mg/L)	Basis
$CBOD_5$	10.0	20.0 †	BPJ TBELs for a discharge to a drainage swale
Total Suspended Solids	10.0	20.0 †	BPJ TBELs for a discharge to a drainage swale
Fecal Coliform (No./100 mL) May 1 – September 30	200 (Geometric Mean)	1,000	25 Pa. Code § 92a.47(a)(4)
Fecal Coliform (No./100 mL) October 1 – April 30	2,000 (Geometric Mean)	10,000	25 Pa. Code § 92a.47(a)(5)
E. Coli (No./100 mL)	—	Report	25 Pa. Code § 92a.61(b)
Total Nitrogen	5.0	10.0 †	BPJ TBELs for a discharge to a drainage swale
Total Phosphorus	0.5	1.0 †	BPJ TBELs for a discharge to a drainage swale
UV Light Transmittance (%)	Report (Instant. Min.)	Report (Mo. Average)	25 Pa. Code § 92a.61(b)
Dissolved Oxygen	6.0 (minimum)	—	BPJ TBELs for a discharge to a drainage swale
pH (s.u.)	not less than 6.0 and not greater than 9.0		25 Pa. Code § 92.2c(b)(4)

† Limit is calculated as two times the monthly average in accordance with the multipliers in Chapter 2 of DEP's Technical Guidance for the Development and Specification of Effluent Limitations.

001.B. Water Quality-Based Effluent Limitations (WQBELs)

DEP calculated WQBELs for ammonia-nitrogen at Outfall 001 dating back to the 1995 NPDES permit using a multiple discharge analysis accounting for synergistic effects caused by treated sewage discharges from Travel Plaza No. 620 and the Smithton Truck Stop. The Smithton Truck Stop—a separately owned and operated facility east of the travel plaza—also has an NPDES permit (PA0095036) for discharges of treated sewage to the same drainage swale. The ammonia-nitrogen WQBELs that were calculated for Pilot's 2007 NPDES permit are summarized below.

Table 4. WQBELs for Ammonia-Nitrogen in the 2007 NPDES Permit

Parameter	Monthly Average (mg/L)	Instant. Maximum (mg/L)
Ammonia Nitrogen May 1 – Oct 31	3.0	6.0
Ammonia Nitrogen Nov 1 – Apr 30	9.0	18.0

In Pilot's 2018 NPDES permit, the ammonia-nitrogen WQBELs for the November 1 through April 30 period were adjusted to 5.0 mg/L average monthly and 10.0 mg/L instantaneous maximum because the minimum treatment requirements for Total Nitrogen[1] (see Table 3 above) implicitly require ammonia-nitrogen concentrations to be lower than 9.0 mg/L average monthly and 18.0 mg/L instantaneous maximum. Even though it is unlikely Total Nitrogen will be composed entirely of ammonia-nitrogen in treated sanitary wastewater, a discharge that contains up to 9.0 mg/L of ammonia-nitrogen would violate a Total Nitrogen limit of 5.0 mg/L.

DEP models sewage discharges at their design flow rates. The design flow rates of the sewage treatment plants at Travel Plaza No. 620 and the Smithton Truck Stop—0.02 MGD and 0.03 MGD, respectively—have not changed since the original water quality analysis was performed. However, pursuant to EPA's March 2021 approval of Pennsylvania's 2017 Triennial

[1] Total Nitrogen is the sum of Total Kjeldahl Nitrogen (ammonia-nitrogen and organic nitrogen) and nitrate-nitrite nitrogen.

Review of Water Quality Standards and corresponding regulatory changes published in the *Pennsylvania Bulletin* on July 11, 2020, new water quality criteria for ammonia-nitrogen apply to waters of the Commonwealth. Therefore, WQBELs for ammonia-nitrogen are re-evaluated even though there have been no changes to the STP's design flow.

In accordance with DEP's "Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers", WQBELs are evaluated at the point of first surface water use. As established with the original water quality modeling from 1995, the point of first surface water use is at the mouth of the drainage swale where it empties into Unnamed Tributary 37856 at River Mile Index (RMI) 1.81. Since the "discharge" at that location at Q_{7-10} low-flow design conditions would consist solely of the discharges from Pilot and Smithton Truck Stop (conservatively, assuming negligible infiltration upstream), the modeled discharge flow is the combined design flow of both facilities: 0.02 MGD + 0.03 MGD = 0.05 MGD.

WQM 7.0 Water Quality Modeling Program

WQM 7.0 is a water quality modeling program for Windows that determines Waste Load Allocations ("WLAs") and effluent limitations for carbonaceous biochemical oxygen demand ("$CBOD_5$"), ammonia-nitrogen, and dissolved oxygen ("DO") for single and multiple point-source discharge scenarios. To accomplish this, the model simulates two basic processes. In the ammonia-nitrogen module, the model simulates the mixing and degradation of ammonia-nitrogen in the stream and compares calculated instream ammonia-nitrogen concentrations to ammonia-nitrogen water quality criteria. In the DO module, the model simulates the mixing and consumption of DO in the stream due to the degradation of $CBOD_5$ and ammonia-nitrogen, and compares calculated instream DO concentrations to DO water quality criteria. WQM 7.0 then determines the highest pollutant loadings that the stream can assimilate while still meeting water quality criteria under design conditions.

Water Quality Modeling with WQM 7.0

Table 5. 001 WQM 7.0 Inputs

Discharge Characteristics	
Parameter	**Value**
River Mile Index	1.81
Discharge Flow (MGD)	0.05
Discharge Temp. (°C) (Summer)	20.0
Discharge Temp. (°C) (Winter)	15.0
Basin/Stream Characteristics	
Parameter	**Value**
Area in Square Miles	0.56
Q_{7-10} (cfs)	0.00369
Low-flow yield (cfs/mi^2)	0.0066
Elevation (ft)	926
Slope	0.0113
Stream Temp. (°C) (Summer)	25.0
Stream Temp. (°C) (Winter)	5.0
Stream pH (s.u.)	7.0

The WQM 7.0 model is run using the combined discharge flow rate of 0.05 MGD to determine whether WQBELs are necessary for $CBOD_5$, ammonia-nitrogen, and/or dissolved oxygen at Outfall 001.[2] Input values for the WQM 7.0 model are shown in Table 5.

DEP's modeling for sewage discharges is a two-step process. First, a discharge is modeled for the summer period (May through October) using warm temperatures for the discharge and the receiving stream. Modeling for the summer period is done first because allowable ammonia-nitrogen concentrations in a discharge are lower at higher temperatures (i.e., warm temperatures are more likely to result in critical loading conditions). Reduced dissolved oxygen levels also appear to increase ammonia toxicity and the maximum concentration of dissolved oxygen in water is lower at higher temperatures. The second step is to evaluate WQBELs for the winter period, but only if modeling shows that WQBELs are needed for the summer period.

For the summer period, pursuant to DEP's "Implementation Guidance of Section 93.7 Ammonia Criteria" [Doc. No. 386-2000-022] (Ammonia Guidance) and in the absence of site-specific data, the discharge temperature is assumed to be 20°C and the design stream temperature and pH are assumed to be 25°C and 7.0 s.u., respectively, based on the recommendations for free stone warm water streams in DEP's Ammonia Guidance (the receiving stream is designated for warm water fishes). The flow used for modeling is 0.05 MGD, as described above. Input discharge concentrations for $CBOD_5$ and ammonia-nitrogen are the model's default concentrations (25 mg/L). The input dissolved oxygen of the discharge is the 6.0 mg/L minimum limit. The width-to-depth ratio is assumed to be 10.

The results of the WQM 7.0 modeling (see Attachment B) indicate that new WQBELs are needed for ammonia-nitrogen. The average monthly and instantaneous maximum ammonia-nitrogen WQBELs calculated by WQM 7.0 for the summer period are 1.97 mg/L and 3.94 mg/L, respectively.

[2] This Fact Sheet only addresses discharges from Travel Plaza No. 620, but concentration limits calculated using the combined discharge flows of Travel Plaza No. 620 and the Smithton Truck Stop can be imposed on either or both discharges.

Table 6. WQBELs for Ammonia-Nitrogen (May 1 – October 31)

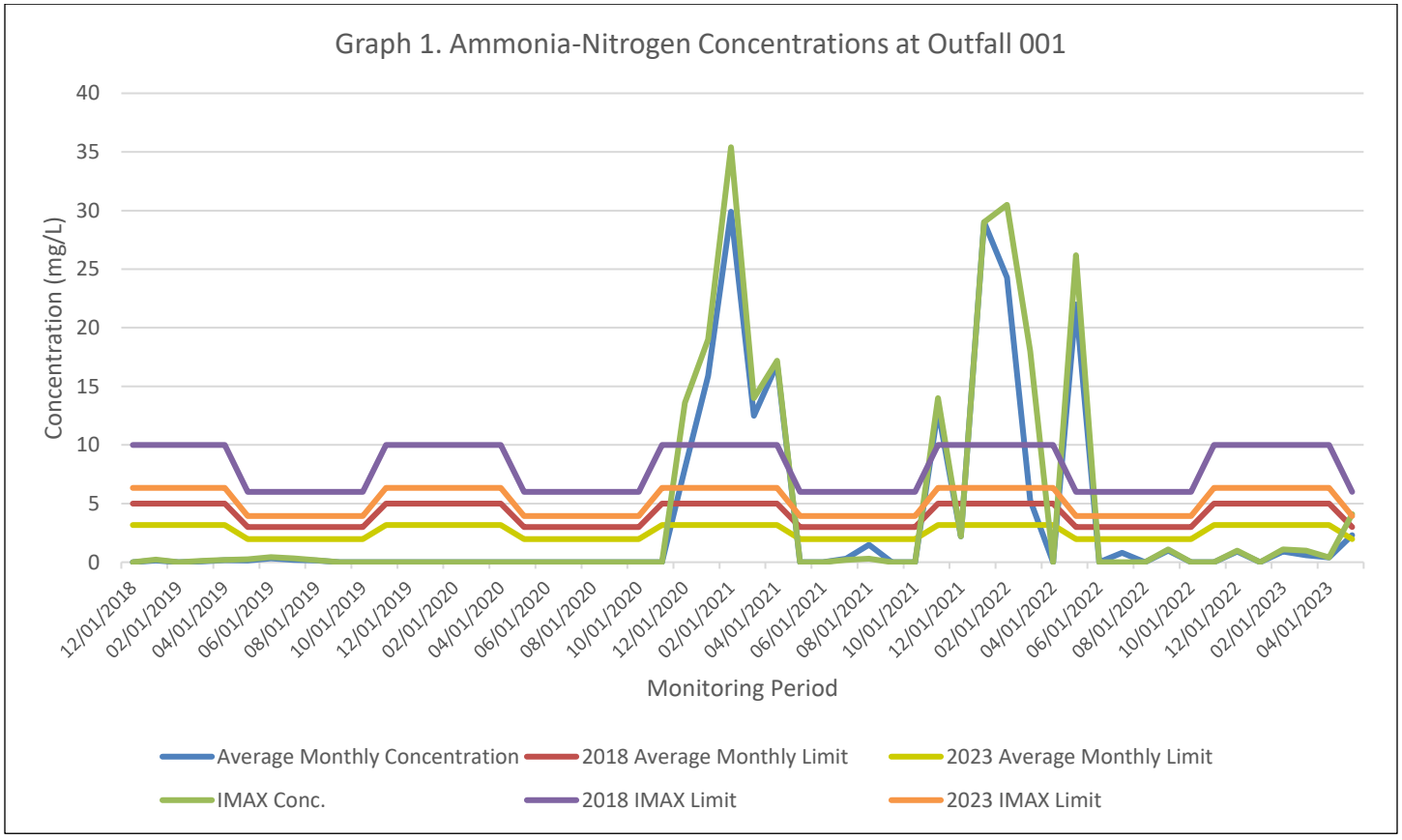
Parameter	Monthly Average (mg/L)	Instant. Maximum (mg/L)
Ammonia Nitrogen May 1 – Oct 31	1.97	3.94

Since WQBELs are calculated for the summer period, winter limits also are evaluated. Pursuant to DEP's Ammonia Guidance, WQBELs for the winter period are set by multiplying the summer limits by three unless modeling indicates that more stringent WQBELs than those calculated using the 3x multiplier are needed for winter. For existing dischargers like Travel Plaza No. 620 and the Smithton Truck Stop, if the model recommends the default input concentration of 25 mg/L as the average monthly limit and the ammonia-nitrogen limits for winter calculated using the 3x multiplier are less stringent than 25 mg/L, then monitoring and reporting is required for the winter period. For winter period modeling, the low-flow yield (representing $Q_{7\text{-}10}$ flow) is doubled to 0.0132 cfs/mi^2 consistent with DEP's Ammonia Guidance. Default stream and discharge temperatures of 5°C and 15°C, respectively, also are assumed based on the Ammonia Guidance. The results of the modeling (see Attachment B to this Fact Sheet) indicate that the following limits are necessary for the winter period.

Table 7. WQBELs for Ammonia-Nitrogen (November 1 – April 30)

Parameter	Monthly Average (mg/L)	Instant. Maximum (mg/L)
Ammonia Nitrogen Nov 1 – Apr 30	3.17	6.34

Apart from periods of upset, analytical results reported under the permit (see Graph 1 below) indicate that the sewage treatment plant can achieve the new ammonia-nitrogen WQBELs. Therefore, no schedule of compliance will be included in the permit for the new ammonia-nitrogen WQBELs.



Unnamed Tributary 37856 - Aquatic Life Impairment for Oil and Grease

The unnamed tributary into which the drainage swale empties is listed as impaired for aquatic life uses. The cause of the impairment is identified as "Oil and Grease" and the source is identified as "Road Runoff." There is no final Total Maximum Daily Load (TMDL) to address the impairment, so no requirements are imposed at this time. Discharges from Outfall 001 are not oil-bearing wastewaters, so they will not contribute to the impairment.

001.C. Effluent Limitations and Monitoring Requirements for Outfall 001

In accordance with 25 Pa. Code §§ 92a.12 and 92a.61, and anti-backsliding requirements under 40 CFR § 122.44(l) (incorporated by reference in Pennsylvania regulations at 25 Pa. Code § 92a.44), effluent limits at Outfall 001 are the more stringent of TBELs, WQBELs, regulatory effluent standards, and monitoring requirements developed for this permit renewal; and effluent limits and monitoring requirements from the previous permit, subject to any exceptions to anti-backsliding discussed previously in this Fact Sheet. Applicable effluent limits and monitoring requirements are summarized in the table below.

Table 8. Effluent Limits and Monitoring Requirements for Outfall 001

Parameter	Mass (pounds)		Concentration (mg/L)		Basis
	Average Monthly	Daily Maximum	Average Monthly	Instant. Maximum	
Flow (MGD)	Report	Report	—	—	25 Pa. Code § 92a.61(d)(1)
$CBOD_5$	—	—	10.0	20.0	BPJ TBELs; 40 CFR 122.44(l)
Total Suspended Solids	—	—	10.0	20.0	BPJ TBELs; 40 CFR 122.44(l)
Fecal Coliform (No. /100mL) May 1 – September 30	—	—	200 (Geo. Mean)	1,000	25 Pa. Code § 92a.47(a)(4)
Fecal Coliform (No. /100mL) October 1 – April 30	—	—	2,000 (Geo. Mean)	10,000	25 Pa. Code § 92a.47(a)(5)
E. Coli (No./100 mL)	—	—	—	Report	25 Pa. Code § 92a.61(b)
Ammonia Nitrogen May 1 – Oct 31	—	—	1.97	3.94	WQBELs; 25 Pa. Code § 92a.12
Ammonia Nitrogen Nov 1 – Apr 30	—	—	3.17	6.34	WQBELs; 25 Pa. Code § 92a.12
Total Nitrogen	—	—	5.0	10.0	BPJ TBELs; 40 CFR 122.44(l)
Total Residual Chlorine	—	—	0.5	1.6	25 Pa. Code § 92a.47(a)(8)
UV Light Transmittance (%)	—	—	Report (minimum)	Report (mon. avg)	25 Pa. Code § 92a.61(b)
Total Phosphorus	—	—	0.5	1.0	BPJ TBELs; 40 CFR 122.44(l)
Dissolved Oxygen	—	—	6.0 (minimum)	—	BPJ TBELs; 40 CFR 122.44(l)
pH (s.u.)	not less than 6.0 nor greater than 9.0 standard units				25 Pa. Code § 92a.47(a)(7)

Consistent with the self-monitoring requirements specified for sewage discharges in Table 6-3 of DEP's "Technical Guidance for the Development and Specification of Effluent Limitations and Other Conditions in NPDES Permits" [Doc. No. 386-0400-001] and the monitoring frequencies in the previous permit: flow, $CBOD_5$, TSS, fecal coliform bacteria, ammonia-nitrogen, total nitrogen, and total phosphorus must be sampled 2/month using grab samples. UV transmittance, dissolved oxygen, and pH must be sampled daily when discharging using grab samples. *E. Coli* must be sampled 1/year using grab samples. Grab samples should be representative of the effluent and are to be taken at a time when the normal daily maximum flow would reach the sampling point.

Development of Effluent Limitations

Outfall No.	002	**Design Flow (MGD)**	Variable
Latitude	40° 10' 19.80"	**Longitude**	-79° 43' 56.20"

Wastewater Description: Storm water runoff from the diesel fuel island treated by an oil/water separator

002.A. Technology-Based Effluent Limitations (TBELs)

Regulatory Effluent Standards and Monitoring Requirements

Discharges of storm water from Outfall 002 are not subject to any Federal Effluent Limitations Guidelines. Therefore, requirements are based on applicable regulatory effluent standards and monitoring requirements.

Outfall 002 is subject to flow monitoring based on 25 Pa. Code § 92.61(h). Also, as oil-bearing wastewaters (from drips or spills around the diesel fuel island), discharges from Outfall 002 are subject to the numerical (15 mg/L monthly average and 30 mg/L instantaneous maximum) and narrative Oil and Grease limits from 25 Pa. Code § 95.2(2). Runoff from the diesel fuel island is treated by an oil/water separator that is already capable of meeting those Oil and Grease limits.

Limits for pH (6.0 to 9.0 standard units) are imposed based on 25 Pa. Code § 95.2(1).

Existing Effluent Limits and Anti-backsliding

The facility was issued Water Quality Management (WQM) Permit on March 30, 1978 for an oil/water separator to treat runoff from the diesel fuel island. As a condition of that WQM permit, effluent limits were imposed for Total Suspended Solids, Oil and Grease, and pH. The application for that WQM permit indicated that the effluent limits would be achievable by the permitted treatment system.

When the facility was issued an NPDES permit for the first time in 1995, the TSS, Oil and Grease, and pH limits from the WQM permit were carried over into the NPDES permit. Those limits were maintained in subsequent permits based on EPA's anti-backsliding regulation (40 CFR § 122.44(l)). A limit for $CBOD_5$ also was imposed at Outfall 002 in the NPDES permit issued in 2001 due to elevated $CBOD_5$ concentrations reported on the NPDES permit application at that time. The following limits are currently in effect at Outfall 002. Nitrate+Nitrite as N reporting also is required with no effluent limit.

Table 9. Outfall 002 Effluent Limits and Monitoring Requirements in 2018 NPDES Permit

Parameter	Average Monthly (mg/L)	Instant. Maximum (mg/L)
$CBOD_5$	25.0	50.0
TSS	35.0	70.0
Oil and Grease	15.0	30.0
pH	6.0 (minimum)	9.0 (maximum)
Nitrate+Nitrite as N	—	Report

DMR data reported over the years have established that the effluent limits in Table 9 are achievable. Pursuant to anti-backsliding and the permittee's general history of compliance, the effluent limits in Table 9 will be maintained in the permit.

Storm Water Monitoring Requirements

Consistent with 25 Pa. Code § 92a.61(h) and DEP's policy for permitting storm water discharges associated with industrial activities, minimum standards described in DEP's PAG-03 NPDES General Permit for Discharges of Stormwater Associated with Industrial Activity will be applied to Outfall 002's storm water discharges. Based on Pilot's SIC Codes of 5541 and 5812, the facility would be classified under Appendix J – "Additional Facilities" of the PAG-03 General Permit.[3] The Appendix

[3] The PAG-03 General Permit imposes requirements on industrial storm water discharges based on a facility's SIC Code, as enumerated in 40 CFR § 122.26(b)(14). Even though SIC Codes 5541 and 5812 are not listed in 40 CFR § 122.26(b)(14), the requirements of Appendix J of the PAG-03 ("Additional Facilities") may be applied to facilities that do not require a permit for storm water discharges associated with industrial activities under the federal regulations, but which may require a permit under Pennsylvania's Clean Streams Law if discharges cause or contribute to pollution. DEP previously identified discharges from Outfalls 004, 005, and 006 as pollutant-bearing discharges. Consequently, the monitoring requirements of Appendix J of the PAG-03 were imposed at Outfalls 004, 005, and 006 pursuant to 25 Pa. Code § 92a.61(b).

J monitoring requirements are shown in Table 10. The monitoring requirements of Appendix J will be imposed at Outfall 002 to the extent that they are not superseded by the effluent limits listed in Table 9.

Table 10. PAG-03 Appendix J – Minimum Monitoring Requirements

Pollutant	Units	Sample Type	Measurement Frequency	Benchmark Value
Total Nitrogen	mg/L	Calculation†	1/6 months	—
Total Phosphorus	mg/L	1 Grab	1/6 months	—
Total Suspended Solids	mg/L	1 Grab	1/6 months	100
Oil and Grease	mg/L	1 Grab	1/6 months	30
pH	S.U.	1 Grab	1/6 months	9.0
Chemical Oxygen Demand	mg/L	1 Grab	1/6 months	120

† Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO2+NO3-N), where TKN and NO2+NO3-N are measured in the same sample.

To the extent that effluent limits are necessary to ensure that storm water Best Management Practices (BMPs) are adequately implemented, effluent limits are developed for industrial storm water discharges based on a determination of Best Available Technology (BAT) using Best Professional Judgment (BPJ). BPJ of BAT typically involves the evaluation of end-of-pipe wastewater treatment technologies, but DEP considers the use of BMPs to be BAT for storm water outfalls unless effluent concentrations indicate that BMPs provide inadequate pollution control.

Table 11 summarizes the effluent data reported for the general chemistry pollutants listed on Module 1 of the NPDES permit application and effluent data reported on Discharge Monitoring Reports between January 2018 and April 2023. Not all Module 1 parameters are analyzed under the requirements of the current permit. Some results are based on only one sample collected to complete the permit application. For mixed datasets consisting of detected and non-detect results, the '<' symbol is ignored when calculating the average and then added back to the calculated result.

Table 11. Effluent Concentrations Reported at Outfall 002

Parameter	Average of Avg. Mo. Concentrations (mg/L)	Average of Instantaneous Max Concentrations (mg/L)	No. of Samples	No Exposure Threshold	PAG-03 Benchmark Value	Permit Benchmark Value
Oil and Grease	<5.9	<6.57	62	≤5.0	30	5.0
BOD_5	25.2	25.2	1	≤10	—	—
COD	29.8	29.8	1	≤30	120	—
TSS	<33.3	<47.4	62	≤30	100	100
Total Nitrogen	4.64	4.64	1	≤2	—	—
Total Phosphorus	0.22	0.22	1	≤1	—	—
$CBOD_5$	<16.5	<24.6	62	—	—	—
Nitrate+Nitrite as N	—	<1.97	62	—	—	0.68
pH (S.U.)	6.4 (Minimum)	8.2 (Maximum)	62	6.0 to 9.0	—	—

Based on the results in Table 11, no additional effluent limits are imposed at Outfall 002. $CBOD_5$ (a component of BOD5), Oil and Grease, TSS, and pH are already controlled by previously imposed effluent limits. COD and Total Phosphorus concentrations are lower than no exposure thresholds. Concentrations of Nitrate+Nitrite as N are often reported as "<1.2 mg/L", so Pilot's exceedance the 0.68 mg/L benchmark value is partly attributable to elevated reporting limits used by its contracted laboratory. DEP's Target Quantitation Limit for Nitrate+Nitrite as N is 0.05 mg/L. No changes are made to requirements for Nitrate+Nitrite as N for this permit renewal. Total Nitrogen results collected based on the PAG-03, Appendix J requirements added to this permit will provide more information on nitrogen in the facility's discharges. Total Nitrogen will require 1/month sampling the same as Nitrate+Nitrite as N.

Even though no additional TBELs are imposed, benchmark values will be maintained in the permit. DEP uses benchmark monitoring in the PAG-03 General Permit as an indicator of the ongoing effectiveness of a facility's best management practices. The storm water benchmark values in the PAG-03 differ from the "No Exposure" thresholds because the PAG-03's benchmark values presume that storm water is exposed to industrial activities. The benchmark values represent values achievable by storm water controls as opposed to storm water that is not exposed to industrial activities, which is generally free of contamination and therefore does not require controls.

Consistent with the PAG-03, the benchmark values for Pilot's discharges will be set at 100 mg/L for TSS and 120 mg/L for COD. The 5.0 mg/L benchmark value for Oil and Grease does not apply to Outfall 002 because Oil and Grease is already subject to TBELs. The benchmark values are not effluent limitations and exceedances do not constitute permit violations. However, if sampling demonstrates exceedances of benchmark values for two or more consecutive monitoring periods, then Pilot must submit a corrective action plan within 90 days of the end of the monitoring period triggering the plan. Continued exceedances of the benchmark values will require a graduated response. The corrective action plan requirement and the benchmark values will be specified in a condition in Part C of the permit.

002.B. Water Quality-Based Effluent Limitations (WQBELs)

Generally, DEP does not develop numerical WQBELs for storm water discharges. Pursuant to 25 Pa. Code § 96.4(g), mathematical modeling used to develop WQBELs must be performed at Q_{7-10} low-flow conditions. Storm water discharges generally do not occur at Q_{7-10} conditions because the precipitation that causes a storm water discharge also will increase the receiving stream's flow (or, in this case, generate a non-zero flow in the drainage swale) and that increased stream flow will provide additional assimilative capacity during a storm event. Consequently, there should be no reasonable potential for storm water discharges to cause or contribute to an exceedance of water quality criteria at design conditions.

Even though no mathematical modeling is performed, 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.

Unnamed Tributary 37856 - Aquatic Life Impairment for Oil and Grease

As discussed in Section 001.B of this Fact Sheet, the unnamed tributary downstream of the travel plaza's outfalls is impaired by Oil and Grease. As an oil-bearing wastewater, requirements for Oil and Grease (see Table 9) are appropriate. More stringent Oil and Grease limits will be imposed at Outfall 002 if warranted by a final TMDL to address aquatic life impairment in the unnamed tributary.

002.C. Effluent Limitations and Monitoring Requirements for Outfall 002

In accordance with 25 Pa. Code §§ 92a.12 and 92a.61 and anti-backsliding requirements under Section 402(o) of the Clean Water Act and 40 CFR § 122.44(l) (incorporated in Pennsylvania's regulations at 25 Pa. Code § 92a.44), effluent limits for Outfall 002 are the more stringent of TBELs, WQBELs, regulatory effluent standards, and monitoring requirements as summarized in the table below.

Table 12. Effluent Limits and Monitoring Requirements for Outfall 002

Parameter	Mass (pounds)		Concentration (mg/L)			Basis
	Average Monthly	Daily Maximum	Average Monthly	Daily Maximum	Instant Maximum	
Flow (MGD)	—	Report	—	—	—	25 Pa. Code § 92a.61(h)
$CBOD_5$	—	—	25.0	—	50.0	BPJ TBELs; 40 CFR 122.44(l)
Chemical Oxygen Demand	—	—	—	—	Report	PAG-03, App. J; § 92a.61(h)
Total Suspended Solids	—	—	35.0	—	70.0	BPJ TBELs; 40 CFR 122.44(l)
Oil and Grease	—	—	15.0	—	30.0	BPJ TBELs; 40 CFR 122.44(l); 25 Pa. Code § 95.2(2)
Total Nitrogen	—	—	—	—	Report	PAG-03, App. J; § 92a.61(h)
Total Phosphorus	—	—	—	—	Report	PAG-03, App. J; § 92a.61(h)
pH (s.u.)	—	—	6.0 (min)		9.0 (max)	25 Pa. Code § 95.2(1)

Flow must be measured 2/month. $CBOD_5$, TSS, Oil and Grease, and pH must be sampled 2/month using grab samples. Nitrate+Nitrite as N must be sampled 1/month using grab samples. Total Nitrogen will require 1/month grab sampling to pair with results for Nitrate+Nitrite as N. Chemical Oxygen Demand and Total Phosphorus will require grab sampling 1/6 months.

Development of Effluent Limitations

Outfall No.	003	**Design Flow (MGD)**	Variable
Latitude	40° 10' 19.42"	**Longitude**	-79° 43' 52.74"

Wastewater Description: Storm water runoff from parking lot areas treated by an oil/water separator

003.A. Technology-Based Effluent Limitations (TBELs)

Regulatory Effluent Standards and Monitoring Requirements

Discharges of storm water from Outfall 003 are not subject to any Federal Effluent Limitations Guidelines. Therefore, requirements are based on applicable regulatory effluent standards and monitoring requirements.

Outfall 003 is subject to flow monitoring based on 25 Pa. Code § 92.61(h). Also, as oil-bearing wastewaters (from drips or spills in the parking area), discharges from Outfall 003 are subject to the numerical (15 mg/L monthly average and 30 mg/L instantaneous maximum) and narrative Oil and Grease limits from 25 Pa. Code § 95.2(2). Runoff from the parking lot is treated by an oil/water separator that is already capable of meeting those Oil and Grease limits.

Limits for pH (6.0 to 9.0 standard units) are imposed based on 25 Pa. Code § 95.2(1).

Existing Effluent Limits and Anti-backsliding

Outfall 003 is currently subject to effluent limits for $CBOD_5$, TSS, and Oil and Grease, and pH. Nitrate+Nitrite as N reporting also is required with no effluent limit. The $CBOD_5$ limits were imposed in the 2007 NPDES permit due to the reporting of elevated BOD_5 concentrations (64.1 mg/L) in storm water runoff. The $CBOD_5$ limits were equivalent to those imposed on storm water discharges at Outfall 002 and correlate to the U.S. Environmental Protection Agency's 30 mg/L storm water benchmark for BOD_5. TSS limits equivalent to those imposed at Outfall 002 were imposed at Outfall 003 in the 2018 NPDES permit. The Oil and Grease and pH limits in the current permit were based on the regulations cited above. The following limits are currently in effect at Outfall 003.

Table 13. Outfall 003 Effluent Limits and Monitoring Requirements in 2018 NPDES Permit

Parameter	Average Monthly (mg/L)	Instant. Maximum (mg/L)
$CBOD_5$	25.0	50.0
TSS	35.0	70.0
Oil and Grease	15.0	30.0
pH	6.0 (minimum)	9.0 (maximum)
Nitrate+Nitrite as N	—	Report

DMR data reported over the years have established that the effluent limits in Table 13 are achievable, but not without occasional compliance problems. Pursuant to anti-backsliding, the effluent limits in Table 13 will be maintained in the permit.

Storm Water Monitoring Requirements

Consistent with 25 Pa. Code § 92a.61(h) and DEP's policy for permitting storm water discharges associated with industrial activities, minimum standards from Appendix J of DEP's PAG-03 NPDES General Permit for Discharges of Stormwater Associated with Industrial Activity will be applied to Outfall 003's storm water discharges (see Table 10 in Section 002.A of this Fact Sheet).

Table 14 summarizes the effluent data reported for the general chemistry pollutants listed on Module 1 of the NPDES permit application and effluent data reported on Discharge Monitoring Reports between January 2018 and April 2023. Not all Module 1 parameters are analyzed under the requirements of the current permit. Some results are based on only one sample collected to complete the permit application. For mixed datasets consisting of detected and non-detect results, the '<' symbol is ignored when calculating the average and then added back to the calculated result.

Table 14. Effluent Concentrations Reported at Outfall 003

Parameter	Average of Avg. Mo. Concentrations (mg/L)	Average of IMAX Concentrations (mg/L)	No. of Samples	No Exposure Threshold	PAG-03 Benchmark Value	Permit Benchmark Value
Oil and Grease	<5.35	<5.56	60	≤5.0	30	5.0
BOD5	<9.3	<9.3	1	≤10	—	—
COD	281	281	1	≤30	120	—
TSS	<71.5	<103.0	49	≤30	100	100
Total Nitrogen	9.5	9.5	1	≤2	—	—
Total Phosphorus	1.1	1.1	1	≤1	—	—
CBOD5	<25.6	<41.2	60	—	—	—
Nitrate+Nitrite as N	—	<1.90	60	—	—	0.68
pH (S.U.)	6.5 (Minimum)	8.6 (Maximum)	60	6.0 to 9.0	—	—

Based on the results in Table 14, no additional effluent limits are imposed at Outfall 003. CBOD5 (a component of BOD5), Oil and Grease, TSS, and pH are already controlled by previously imposed effluent limits. Total Phosphorus concentrations are comparable to the no exposure threshold. COD concentrations are high but will be controlled by benchmark monitoring. Concentrations of Nitrate+Nitrite as N are often reported as "<1.2 mg/L", so Pilot's exceedance of the 0.68 mg/L benchmark value is partly attributable to elevated reporting limits used by its contracted laboratory. No changes are made to requirements for Nitrate+Nitrite as N for this permit renewal. Total Nitrogen results collected based on the PAG-03, Appendix J requirements added to this permit will provide more information on nitrogen in the facility's discharges. Total Nitrogen will require 1/month sampling the same as Nitrate+Nitrite as N.

Even though no additional TBELs are imposed, benchmark values will be maintained in the permit. As previously explained, DEP uses benchmark monitoring in the PAG-03 General Permit as an indicator of the ongoing effectiveness of a facility's best management practices. Consistent with the PAG-03, the benchmark values for Pilot's discharges will be set at 100 mg/L for TSS and 120 mg/L for COD. The 5.0 mg/L benchmark value for Oil and Grease does not apply to Outfall 003 because Oil and Grease is already subject to TBELs. The benchmark values are not effluent limitations and exceedances do not constitute permit violations. However, if sampling demonstrates exceedances of benchmark values for two or more consecutive monitoring periods, then Pilot must submit a corrective action plan within 90 days of the end of the monitoring period triggering the plan. Continued exceedances of the benchmark values will require a graduated response. The corrective action plan requirement and the benchmark values will be specified in a condition in Part C of the permit.

003.B. Water Quality-Based Effluent Limitations (WQBELs)

DEP generally does not develop numerical WQBELs for storm water discharges. 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.

Unnamed Tributary 37856 - Aquatic Life Impairment for Oil and Grease

As discussed in Section 001.B of this Fact Sheet, the unnamed tributary downstream of the travel plaza's outfalls is impaired by Oil and Grease. As an oil-bearing wastewater, the effluent limits for Oil and Grease imposed on Outfall 003's discharges pursuant to 25 Pa. Code § 95.2(2) are appropriate. More stringent Oil and Grease limits will be imposed at Outfall 003 if warranted by a final TMDL to address aquatic life impairment in the unnamed tributary.

003.C. Effluent Limitations and Monitoring Requirements for Outfall 003

In accordance with 25 Pa. Code §§ 92a.12 and 92a.61 and anti-backsliding requirements under Section 402(o) of the Clean Water Act and 40 CFR § 122.44(l) (incorporated in Pennsylvania's regulations at 25 Pa. Code § 92a.44), effluent limits for Outfall 003 are the more stringent of TBELs, WQBELs, regulatory effluent standards, and monitoring requirements as summarized in the table below.

Table 16. Effluent Limits and Monitoring Requirements for Outfall 003

Parameter	Mass (pounds)		Concentration (mg/L)			Basis
	Average Monthly	Daily Maximum	Average Monthly	Daily Maximum	Instant Maximum	
Flow (MGD)	—	Report	—	—	—	25 Pa. Code § 92a.61(h)

Table 16 (continued). Effluent Limits and Monitoring Requirements for Outfall 003

Parameter	Mass (pounds)		Concentration (mg/L)			Basis
	Average Monthly	Daily Maximum	Average Monthly	Daily Maximum	Instant Maximum	
$CBOD_5$	—	—	25.0	—	50.0	BPJ TBELs; 40 CFR 122.44(l)
Chemical Oxygen Demand	—	—	—	—	Report	PAG-03, App. J; § 92a.61(h)
Total Suspended Solids	—	—	35.0	—	70.0	BPJ TBELs; 40 CFR 122.44(l)
Oil and Grease	—	—	15.0	—	30.0	BPJ TBELs; 40 CFR 122.44(l); 25 Pa. Code § 95.2(2)
Total Nitrogen	—	—	—	—	Report	PAG-03, App. J; § 92a.61(h)
Total Phosphorus	—	—	—	—	Report	PAG-03, App. J; § 92a.61(h)
pH (s.u.)	—	—	6.0 (min)		9.0 (max)	25 Pa. Code § 95.2(1)

Flow must be measured 2/month. $CBOD_5$, TSS, Oil and Grease, and pH must be sampled 2/month using grab samples. Nitrate+Nitrite as N must be sampled 1/month using grab samples. Total Nitrogen will require 1/month grab sampling to pair with results for Nitrate+Nitrite as N. Chemical Oxygen Demand and Total Phosphorus will require grab sampling 1/6 months.

Development of Effluent Limitations

Outfall Nos.	004, 005, and 006	**Design Flow (MGD)**	Variable
Latitude	40° 10' 10.25"; 40° 10' 9.50"; 40° 10' 11.80"	**Longitude**	-79° 43' 53.35"; -79° 43' 55.32"; -79° 43' 56.75"
Wastewater Description:	Storm water runoff from a parking lot		

SWO.A. Technology-Based Effluent Limitations (TBELs)

As with Outfalls 002 and 003, discharges of storm water from Outfalls 004, 005, and 006 are not subject to any Federal Effluent Limitations Guidelines. Therefore, requirements are based on applicable regulatory effluent standards and monitoring requirements.

Consistent with 25 Pa. Code § 92a.61(h) and DEP's policy for permitting storm water discharges associated with industrial activities, minimum standards described in DEP's PAG-03 NPDES General Permit for Discharges of Stormwater Associated with Industrial Activity will be applied to storm water discharges from Outfalls 004, 005, and 006. Based on Pilot's SIC Codes of 5541 and 5812, the facility would be classified under Appendix J – "Additional Facilities" of the PAG-03 General Permit. The Appendix J monitoring requirements are shown in Table 10 in Section 002.A of this Fact Sheet. Flow monitoring also is required pursuant to 25 Pa. Code § 92.61(h). Previously imposed monitoring requirements for Nitrate+Nitrite as N will be maintained at Outfalls 004, 005, and 006.

Table 18 summarizes the effluent data reported for the general chemistry pollutants listed on Module 1 of the NPDES permit application and effluent data reported on Discharge Monitoring Reports between January 2018 and April 2023. Not all Module 1 parameters are analyzed under the requirements of the current permit. Some results are based on only one sample collected to complete the permit application. For mixed datasets consisting of detected and non-detect results, the '<' symbol is ignored when calculating the average and then added back to the calculated result.

Table 18. Effluent Concentrations Reported at Outfalls 004, 005, and 006

Parameter	Outfall 004	No. of Samples	Outfall 005	No. of Samples	Outfall 006	No. of Samples	No Exposure Threshold	PAG-03 Benchmark Value	Permit Benchmark Value
Oil and Grease	<4.87	9	<4.89	9	<5.09	9	≤5.0	30	5.0
BOD5	13.6	1	6.46	1	<2.00	1	≤10	—	—
COD	76.3	1	29.8	1	<20.0	1	≤30	120	—
TSS	<24.4	9	<38	9	<17	49	≤30	100	100
Total Nitrogen	1.76	1	4.78	1	<0.729	1	≤2	—	—
Total Phosphorus	0.23	1	0.42	1	0.26	1	≤1	—	—
CBOD5	16.0	1	12.5	1	5.66	1	—	—	—
Nitrate+Nitrite as N	<1.280	58	<1.274	59	<1.238	58	—	—	0.68

Based on the results in Table 18, no effluent limits are imposed at Outfalls 004, 005, and 006. Pollutants generally are present in low (but not insignificant) concentrations. Concentrations of Nitrate+Nitrite as N are often reported as "<1.2 mg/L", so Pilot's exceedance of the 0.68 mg/L benchmark value is mostly attributable to elevated reporting limits used by its contracted laboratory. The monitoring frequency for Nitrate+Nitrite as N at Outfalls 004, 005, and 006 will be reduced from 1/month to 1/6 months for this renewal, but the benchmark value will remain in effect.

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.

SWO.B. Water Quality-Based Effluent Limitations (WQBELs)

As explained in Section 002.B of this Fact Sheet, DEP generally does not develop numerical WQBELs for storm water discharges. However, 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.

Unnamed Tributary 37856 - Aquatic Life Impairment for Oil and Grease

As discussed in Section 001.B of this Fact Sheet, the unnamed tributary downstream of the travel plaza's outfalls is impaired by Oil and Grease. Small spills of fuel, engine oil, or transmission fluid may occur in the parking lot in front of the facility from which Outfalls 004, 005, and 006 discharge. Discharges from Outfalls 004, 005, and 006 are generally not classified as oil-bearing wastewaters (and are not treated as such by Pilot). However, Oil and Grease limits will be imposed at these outfalls if warranted by a final TMDL to address aquatic life impairment in the unnamed tributary.

SWO.C. Effluent Limitations and Monitoring Requirements for Storm Water Outfalls 004, 005, and 006

In accordance with 25 Pa. Code §§ 92a.12 and 92a.61 and anti-backsliding requirements under Section 402(o) of the Clean Water Act and 40 CFR § 122.44(l) (incorporated in Pennsylvania's regulations at 25 Pa. Code § 92a.44), effluent limits for Outfalls 004, 005, and 006 are the more stringent of TBELs, WQBELs, regulatory effluent standards, and monitoring requirements as summarized in the table below.

Table 19. Effluent Limits and Monitoring Requirements for Outfalls 004, 005 and 006

Parameter	Mass (pounds)		Concentration (mg/L)			Basis
	Average Monthly	Daily Maximum	Average Monthly	Daily Maximum	Instant Maximum	
Flow (MGD)	—	Report	—	—	—	25 Pa. Code § 92a.61(h)
Chemical Oxygen Demand	—	—	—	Report	—	PAG-03, App. J; § 92a.61(h)
Total Suspended Solids	—	—	—	Report	—	PAG-03, App. J; § 92a.61(h)
Oil and Grease	—	—	—	Report	—	PAG-03, App. J; § 92a.61(h)
Total Nitrogen	—	—	—	Report	—	PAG-03, App. J; § 92a.61(h)
Total Phosphorus	—	—	—	Report	—	PAG-03, App. J; § 92a.61(h)
Nitrate-Nitrite Nitrogen	—	—	—	Report	—	25 Pa. Code § 92a.61(h)

All parameters will require grab sampling 1/6 months.

Tools and References Used to Develop Permit	
☒	WQM for Windows Model (see Attachment B)
☐	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.
☒	"Standard Operating Procedure for Clean Water Program Establishing Effluent Limitations for Individual Sewage Permits" [SOP No. BCW-PMT-033, Version 1.9, March 22, 2021]
☐	Other:

ATTACHMENT A

Wastewater Treatment System Site Assessment

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

July 31, 2023

Wastewater Treatment System Site Assessment

For

Pilot Travel Centers LLC
Flying J Travel Plaza No. 620
South Huntington Township, Westmoreland County
PA0046019

Prepared by:
Jeremy D. Miller, Wastewater Treatment Operations Advisor
Bureau of Clean Water, Wastewater Operations Section

On July 25, 2023, Jeremy D. Miller, Wastewater Treatment Operations Advisor, Stacey Greenwald, Environmental Group Manager, James Stewart, Water Quality Specialist met with Thomas Roth, Senior Service Manager with IFM Water Cycle Technologies, and David Price, Wastewater Treatment Plant Operator, at the site to discuss effluent exceedances with the wastewater treatment plant and stormwater outfalls. The facility has an NPDES permit for the discharge of industrial wastewater and consists of an activated sludge wastewater treatment plant designed to treat 20,000 gallons a day, two oil water separators and three storm water outfalls.

A review of Discharge Monitoring Reports (DMR) shows that most compliance issues are with the wastewater treatment plant and the two outfalls associated with the oil and water separators. Specifically, the wastewater treatment plant struggles with meeting the total nitrogen limit of 5.0 mg/l on a monthly average and a phosphorus limit of 0.5 mg/l on a monthly average. The oil and water separator outfalls, 002 and 003, show issues with TSS and cBOD5 limits, both instantaneous maximum and average monthly limits.

Wastewater Treatment Plant

Denitrification is a biological process performed by heterotrophic bacteria that reduces nitrate to nitrogen gas. This process requires anoxic conditions (absence of free oxygen) and food in the form of carbon. No dissolved oxygen can be present. Only in the absences of free oxygen will the bacteria use nitrate to respire instead of oxygen and convert the nitrate into nitrogen gas.

The wastewater plant is configured as a four stage Bardenpho with an upfront anoxic tank, aeration tank and a post anoxic tank. The upfront anoxic tank takes advantage of the carbon in the influent wastewater as cBOD. In the aeration tank all the available carbon is depleted. Once the cBOD is below 30 mg/l in the aeration tank nitrification can begin and ammonia is converted to nitrate. The post aeration tank utilizes a carbon feed system to supply carbon and drive denitrification further.

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Currently the dose of carbon is set by a chemical feed pump, and adjustments are made, if necessary, after reviewing effluent lab results. The lab results often take a week or more from the time collected until the operator is emailed a report. This date if often too old and not helpful to use in adjusting process control. The use of Oxidation Potential Probes (ORP) in both anoxic tanks can help the operator adjust the carbon feed and ensure nitrification is being completed in real time.

Phosphorus is being treated chemically by adding a solution containing an aluminum salt, into the plant before discharge. The removal of phosphorus from wastewater using metal salts involves incorporation of phosphate into the biological solids (flash mixing) and then removing those solids from the system. Theoretically it takes 0.87 pounds of aluminum to remove 1 pound of phosphorus. Due to the effects of alkalinity, pH and other trace elements on this chemical reaction, it is best to establish the proper dosage using jar testing. Phosphorus can become free again in the sludge holding tank if conditions become anoxic for prolonged periods of time. This causes the levels in phosphorus to become elevated in the supernatant. Returning this phosphorus riche supernatant to the plant can cause a shock load of phosphorus on the system.

Wastewater Plant Recommendations

It is recommended that continuous use ORP probes be installed and maintained so that process control decisions can be made and adjusted in real time. Ideal ranges for ORP in the anoxic tanks would range from 0 – negative 100. The carbon feed system can be adjusted to drive this value lower. Caution must be used not to overfeed carbon at this point as some may breakthrough causing cBOD5 exceedances.

Due to the low phosphorus limit and the fact that phosphorus could be released in the sludge holding tank supernatant if held for a long time and allowed to become anoxic (such as a 24-hour settling period before dewatering), it is recommended that the supernatant be routinely tested for phosphorus and ammonia. In house testing equipment could be used for these tests as it is for process control. If it is found that the supernatant is elevated for phosphorus, sludge may need to be hauled more frequently and with less time settling before dewatering.

Oil Water Separator Outfalls

DMRs show a history of non-compliance at the outfalls for cBOD5 and TSS. It is likely that the cause of cBOD5 is from a chemical substance such as anti-freeze or some other contaminate being discharged to the stormwater drains. It was recommended that a COD be taken as well as a cBOD5 to see the relationship between the two in helping discover what substance could be in the samples. It was recommended that the outfalls be televised to make sure there are no waste lines tied into the storm drain. Posting signs at the stormwater drain or painting on the cement by the drain warning that the drain discharges to a stream may prevent some unwanted materials

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being dumped into the drains. Also offering a waste liquid service for substances like antifreeze or petroleum products may also reduce these materials from being discharged down the stormwater drain.

Oil/Water Separator Recommendations

It is recommended that the oil/water separators be cleaned frequently. Street sweeping of the facility is recommended for reducing TSS violations. With an active truck stop, sweeping may be difficult as trucks are parking for long periods of time while drivers rest. It might be necessary to sweep more often so that areas that were previously missed might be available for sweeping when a truck moves away. It might be necessary to block small areas off for a few hours so that the street sweeper may access the area for sweeping.

Future Technical Assistance

If the facility or operator would like to continue technical assistance they may contact Jeremy Miller at jermiller@pa.gov of 570.830.3078.

ATTACHMENT B

WQM 7.0 Modeling Results

Summer Period

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19D	37856	Trib 37856 to Youghiogheny River	1.810	926.00	0.56	0.01130	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.007	0.00	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Outfall 001	PA0046019-1	0.0500	0.0000	0.0000	0.000	20.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	6.00	8.38	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Summer Period

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19D	37856	Trib 37856 to Youghiogheny River	0.810	818.00	2.22	0.01130	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.007	0.00	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Summer Period

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
19D	37856	Trib 37856 to Youghiogheny River

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
1.810	0.00	0.00	0.00	.0773	0.01130	.339	3.82	11.25	0.06	0.977	20.23	7.00
Q1-10 Flow												
1.810	0.00	0.00	0.00	.0773	0.01130	NA	NA	NA	0.06	0.986	20.15	7.00
Q30-10 Flow												
1.810	0.01	0.00	0.01	.0773	0.01130	NA	NA	NA	0.06	0.968	20.31	7.00

Summer Period

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	6		

Summer Period

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
19D	37856	Trib 37856 to Youghiogheny River

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
1.810	Outfall 001	16.56	17.06	16.56	17.06	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
1.810	Outfall 001	1.85	1.97	1.85	1.97	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
1.81	Outfall 001	25	25	1.97	1.97	6	6	0	0

Summer Period

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
19D	37856	Trib 37856 to Youghiogheny River

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
1.810	0.050	20.228	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
3.818	0.339	11.247	0.063
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
23.95	1.487	1.88	0.712
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
6.109	25.130	Owens	6
Reach Travel Time (days)			
0.977			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.098	20.68	1.75	6.87
0.195	17.86	1.64	7.20
0.293	15.42	1.53	7.45
0.391	13.31	1.42	7.66
0.489	11.49	1.33	7.85
0.586	9.92	1.24	8.01
0.684	8.57	1.16	8.15
0.782	7.40	1.08	8.21
0.880	6.39	1.01	8.21
0.977	5.52	0.94	8.21

Summer Period

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
19D	37856	Trib 37856 to Youghiogheny River

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
1.810	Outfall 001	PA0046019-1	0.050	CBOD5	25		
				NH3-N	1.97	3.94	
				Dissolved Oxygen			6

Winter Period

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19D	37856	Trib 37856 to Youghiogheny River	1.810	926.00	0.56	0.01130	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.013	0.00	0.00	0.000	0.000	0.0	0.00	0.00	5.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Outfall 001	PA0046019-1	0.0500	0.0000	0.0000	0.000	15.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	6.00	12.80	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Winter Period

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19D	37856	Trib 37856 to Youghiogheny River	0.810	818.00	2.22	0.01130	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.013	0.00	0.00	0.000	0.000	0.0	0.00	0.00	5.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Winter Period

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
19D	37856	Trib 37856 to Youghiogheny River

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
1.810	0.01	0.00	0.01	.0773	0.01130	.342	3.86	11.3	0.06	0.953	14.13	7.00
Q1-10 Flow												
1.810	0.00	0.00	0.00	.0773	0.01130	NA	NA	NA	0.06	0.970	14.42	7.00
Q30-10 Flow												
1.810	0.01	0.00	0.01	.0773	0.01130	NA	NA	NA	0.07	0.937	13.85	7.00

Winter Period

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	6		

Winter Period

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
19D	37856	Trib 37856 to Youghiogheny River

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
1.810	Outfall 001	24.1	25.58	24.1	25.58	1	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
1.810	Outfall 001	2.81	3.17	2.81	3.17	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
1.81	Outfall 001	25	25	3.17	3.17	6	6	0	0

Winter Period

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
19D	37856	Trib 37856 to Youghiogheny River

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
1.810	0.050	14.128	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
3.864	0.342	11.298	0.064
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
22.99	1.480	2.89	0.445
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
6.593	21.806	Owens	6
Reach Travel Time (days)			
0.953			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.095	20.65	2.77	8.14
0.191	18.54	2.66	8.49
0.286	16.65	2.55	8.68
0.381	14.95	2.44	8.83
0.477	13.42	2.34	8.97
0.572	12.05	2.24	9.09
0.667	10.82	2.15	9.20
0.763	9.72	2.06	9.26
0.858	8.72	1.97	9.26
0.953	7.83	1.89	9.26

Winter Period

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
19D	37856	Trib 37856 to Youghiogheny River

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
1.810	Outfall 001	PA0046019-1	0.050	CBOD5	25		
				NH3-N	3.17	6.34	
				Dissolved Oxygen			6

ATTACHMENT C

Operations Compliance Check Summary Report

Operations Compliance Check Summary Report

Facility: Flying J Travel Plaza No 620

NPDES Permit No.: PA0046019

Compliance Review Period: 9/1/18-9/12/23

Inspection Summary:

INSPECTED DATE	INSP TYPE	AGENCY	INSPECTION RESULT DESC	INSPECTION COMMENT
07/25/2023	Routine/Partial Inspection	PA Dept of Environmental Protection	No Violations Noted	
04/11/2023	Compliance Evaluation	PA Dept of Environmental Protection	Violation(s) Noted	
04/10/2023	Administrative/File Review	PA Dept of Environmental Protection	No Violations Noted	An administrative review from 2/1/2020 to 3/1/2023 revealed (183) violations that have been notated on the 4/11/2023 CEI report.
02/18/2020	Compliance Evaluation	PA Dept of Environmental Protection	Violation(s) Noted	
07/16/2019	Incident-Response to Accident or Event	PA Dept of Environmental Protection	No Violations Noted	

Violation Summary:

VIOLATION DATE	VIOLATION TYPE	VIOLATION TYPE DESC	RESOLVED DATE
04/11/2023	92A.44	NPDES - Violation of effluent limits in Part A of permit	9/12/2023
02/18/2020	92A.44	NPDES - Violation of effluent limits in Part A of permit	10/31/2022
02/18/2020	92A.41(A)10A	NPDES - Failure to retain records required by the permit	10/31/2022

Open Violations by Client ID:

There are no open violations for Client ID 135750 with Clean Water Program. The follow open violations are listed in eFACTS with the Safe Drinking Water Program in the Northwest Region:

INSP PROGRAM	PROGRAM SPECIFIC ID	INSP ID	VIOLATION ID	INSPECTION CATEGORY	VIOLATION DATE	VIOLATION CODE	VIOLATION
Safe Drinking Water	5101025	3493686	982957	PF	01/26/2023	C1A	FAILURE TO MEET DESIGN AND CONSTRUCTION STANDARDS
Safe Drinking Water	5101025	3493686	982958	PF	01/26/2023	C4A	FAILURE TO OPERATE AND MAINTAIN THE WATER SYSTEM
Safe Drinking Water	5101025	3493686	982959	PF	01/26/2023	C4A	FAILURE TO OPERATE AND MAINTAIN THE WATER SYSTEM

Enforcement Summary:

ENF TYPE	ENF TYPE DESC	EXECUTED DATE	VIOLATIONS	ENF FINALSTATUS
NOV	Notice of Violation	4/19/23	92A.44	Administrative Close Out
NOV	Notice of Violation	2/24/20	92A.44, 92A.41(A)10A	Administrative Close Out

Effluent Violation Summary:

MON_PD	PARAMETER	SAMPLE	PERMIT	UNIT	STAT_BASE_CODE
Jul-23	Total Phosphorus	0.9	0.5	mg/L	Average Monthly
Jul-23	Total Phosphorus	1.6	1	mg/L	Instantaneous Maximum
Jul-23	Total Suspended Solids	11.5	10	mg/L	Average Monthly
Jul-23	Total Suspended Solids	37	35	mg/L	Average Monthly
Jun-23	Total Phosphorus	0.7	0.5	mg/L	Average Monthly
Jun-23	Total Suspended Solids	13	10	mg/L	Average Monthly
Jun-23	Total Suspended Solids	21	20	mg/L	Instantaneous Maximum
Jun-23	Total Suspended Solids	39	35	mg/L	Average Monthly
Jun-23	Total Suspended Solids	126	35	mg/L	Average Monthly
Jun-23	Total Suspended Solids	182	70	mg/L	Instantaneous Maximum
May-23	Total Nitrogen	6.2	5	mg/L	Average Monthly
May-23	Total Phosphorus	1	0.5	mg/L	Average Monthly
May-23	Total Phosphorus	1.2	1	mg/L	Instantaneous Maximum
Apr-23	Fecal Coliform	2362	2000	No./100 ml	Geometric Mean
Apr-23	Total Suspended Solids	128	70	mg/L	Instantaneous Maximum
Apr-23	Total Suspended Solids	72	35	mg/L	Average Monthly
Mar-23	Total Suspended Solids	44	35	mg/L	Average Monthly
Mar-23	Total Suspended Solids	72	70	mg/L	Instantaneous Maximum
Feb-23	Carbonaceous Biochemical Oxygen Demand (CBOD5)	45.8	25	mg/L	Average Monthly
Feb-23	Carbonaceous Biochemical Oxygen Demand (CBOD5)	85.6	50	mg/L	Instantaneous Maximum
Feb-23	Total Suspended Solids	66	35	mg/L	Average Monthly
Feb-23	Total Suspended Solids	88	70	mg/L	Instantaneous Maximum
Jan-23	Total Nitrogen	6.1	5	mg/L	Average Monthly
Jan-23	Total Suspended Solids	48	35	mg/L	Average Monthly
Jan-23	Total Suspended Solids	322	35	mg/L	Average Monthly
Jan-23	Total Suspended Solids	490	70	mg/L	Instantaneous Maximum
Dec-22	Oil and Grease	15.5	15	mg/L	Average Monthly
Dec-22	Total Suspended Solids	120	35	mg/L	Average Monthly
Dec-22	Total Suspended Solids	131	70	mg/L	Instantaneous Maximum
Dec-22	Carbonaceous Biochemical Oxygen Demand (CBOD5)	69	25	mg/L	Average Monthly
Dec-22	Carbonaceous Biochemical Oxygen Demand (CBOD5)	69	50	mg/L	Instantaneous Maximum
Dec-22	Total Suspended Solids	371	35	mg/L	Average Monthly
Dec-22	Total Suspended Solids	700	70	mg/L	Instantaneous Maximum
Nov-22	Total Phosphorus	1.1	0.5	mg/L	Average Monthly
Nov-22	Total Phosphorus	1.6	1	mg/L	Instantaneous Maximum
Nov-22	Total Suspended Solids	56	35	mg/L	Average Monthly
Nov-22	Total Suspended Solids	79	70	mg/L	Instantaneous Maximum

MON_PD	PARAMETER	SAMPLE	PERMIT	UNIT	STAT_BASE_CODE
Nov-22	Carbonaceous Biochemical Oxygen Demand (CBOD5)	133	25	mg/L	Average Monthly
Nov-22	Carbonaceous Biochemical Oxygen Demand (CBOD5)	227	50	mg/L	Instantaneous Maximum
Nov-22	Total Suspended Solids	275	35	mg/L	Average Monthly
Nov-22	Total Suspended Solids	404	70	mg/L	Instantaneous Maximum
Oct-22	Total Phosphorus	2.2	0.5	mg/L	Average Monthly
Oct-22	Total Phosphorus	2.5	1	mg/L	Instantaneous Maximum
Oct-22	Total Suspended Solids	27	10	mg/L	Average Monthly
Oct-22	Total Suspended Solids	46	20	mg/L	Instantaneous Maximum
Oct-22	Total Suspended Solids	174	70	mg/L	Instantaneous Maximum
Oct-22	Total Suspended Solids	90	35	mg/L	Average Monthly
Oct-22	Carbonaceous Biochemical Oxygen Demand (CBOD5)	54	25	mg/L	Average Monthly
Oct-22	Carbonaceous Biochemical Oxygen Demand (CBOD5)	64	50	mg/L	Instantaneous Maximum
Oct-22	Total Suspended Solids	60	35	mg/L	Average Monthly
Oct-22	Total Suspended Solids	84	70	mg/L	Instantaneous Maximum
Sep-22	Total Suspended Solids	50	35	mg/L	Average Monthly
Sep-22	Total Suspended Solids	84	70	mg/L	Instantaneous Maximum
Sep-22	Total Suspended Solids	100	70	mg/L	Instantaneous Maximum
Sep-22	Total Suspended Solids	58	35	mg/L	Average Monthly
Jul-22	Total Suspended Solids	14	10	mg/L	Average Monthly
Jul-22	Total Suspended Solids	57	35	mg/L	Average Monthly
Jul-22	Total Suspended Solids	86	70	mg/L	Instantaneous Maximum
May-22	Ammonia-Nitrogen	22	3	mg/L	Average Monthly
May-22	Ammonia-Nitrogen	26.2	6	mg/L	Instantaneous Maximum
May-22	Total Nitrogen	22	5	mg/L	Average Monthly
May-22	Total Nitrogen	27	10	mg/L	Instantaneous Maximum
May-22	Total Suspended Solids	63	35	mg/L	Average Monthly
May-22	Total Suspended Solids	84	70	mg/L	Instantaneous Maximum
May-22	Carbonaceous Biochemical Oxygen Demand (CBOD5)	43	25	mg/L	Average Monthly
May-22	Total Suspended Solids	122	35	mg/L	Average Monthly
May-22	Total Suspended Solids	214	70	mg/L	Instantaneous Maximum
Apr-22	Total Suspended Solids	126	70	mg/L	Instantaneous Maximum
Apr-22	Total Suspended Solids	93	35	mg/L	Average Monthly
Mar-22	Ammonia-Nitrogen	18	10	mg/L	Instantaneous Maximum
Mar-22	Ammonia-Nitrogen	5.3	5	mg/L	Average Monthly
Mar-22	Total Nitrogen	10.1	5	mg/L	Average Monthly
Mar-22	Total Nitrogen	29.1	10	mg/L	Instantaneous Maximum
Mar-22	Carbonaceous Biochemical Oxygen Demand (CBOD5)	29	25	mg/L	Average Monthly
Mar-22	Carbonaceous Biochemical Oxygen Demand (CBOD5)	77	25	mg/L	Average Monthly
Mar-22	Carbonaceous Biochemical Oxygen Demand (CBOD5)	84	50	mg/L	Instantaneous Maximum
Mar-22	Total Suspended Solids	134	35	mg/L	Average Monthly
Mar-22	Total Suspended Solids	212	70	mg/L	Instantaneous Maximum
Feb-22	Ammonia-Nitrogen	24.3	5	mg/L	Average Monthly
Feb-22	Ammonia-Nitrogen	30.5	10	mg/L	Instantaneous Maximum
Feb-22	Total Nitrogen	30	5	mg/L	Average Monthly

MON_PD	PARAMETER	SAMPLE	PERMIT	UNIT	STAT_BASE_CODE
Feb-22	Total Nitrogen	36.3	10	mg/L	Instantaneous Maximum
Feb-22	Total Suspended Solids	21	10	mg/L	Average Monthly
Feb-22	Total Suspended Solids	31	20	mg/L	Instantaneous Maximum
Feb-22	Total Suspended Solids	113.4	35	mg/L	Average Monthly
Feb-22	Total Suspended Solids	188	70	mg/L	Instantaneous Maximum
Jan-22	Ammonia-Nitrogen	29	10	mg/L	Instantaneous Maximum
Jan-22	Ammonia-Nitrogen	29	5	mg/L	Average Monthly
Jan-22	Carbonaceous Biochemical Oxygen Demand (CBOD5)	43	10	mg/L	Average Monthly
Jan-22	Carbonaceous Biochemical Oxygen Demand (CBOD5)	46	20	mg/L	Instantaneous Maximum
Jan-22	Fecal Coliform	2420	2000	No./100 ml	Geometric Mean
Jan-22	Total Nitrogen	42	5	mg/L	Average Monthly
Jan-22	Total Nitrogen	44	10	mg/L	Instantaneous Maximum
Jan-22	Total Phosphorus	2.2	0.5	mg/L	Average Monthly
Jan-22	Total Phosphorus	3	1	mg/L	Instantaneous Maximum
Jan-22	Total Suspended Solids	120	10	mg/L	Average Monthly
Jan-22	Total Suspended Solids	172	20	mg/L	Instantaneous Maximum
Jan-22	Carbonaceous Biochemical Oxygen Demand (CBOD5)	61	25	mg/L	Average Monthly
Jan-22	Carbonaceous Biochemical Oxygen Demand (CBOD5)	82	50	mg/L	Instantaneous Maximum
Jan-22	Oil and Grease	37	15	mg/L	Average Monthly
Jan-22	Oil and Grease	51.6	30	mg/L	Instantaneous Maximum
Jan-22	Total Suspended Solids	232	35	mg/L	Average Monthly
Jan-22	Total Suspended Solids	440	70	mg/L	Instantaneous Maximum
Dec-21	Total Nitrogen	5.2	5	mg/L	Average Monthly
Dec-21	Total Suspended Solids	55	35	mg/L	Average Monthly
Dec-21	Total Suspended Solids	81	70	mg/L	Instantaneous Maximum
Nov-21	Ammonia-Nitrogen	13	5	mg/L	Average Monthly
Nov-21	Ammonia-Nitrogen	14	10	mg/L	Instantaneous Maximum
Nov-21	Total Nitrogen	14	5	mg/L	Average Monthly
Nov-21	Total Nitrogen	16	10	mg/L	Instantaneous Maximum
Aug-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	32.5	25	mg/L	Average Monthly
Jul-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	26.4	25	mg/L	Average Monthly
Jul-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	46	25	mg/L	Average Monthly
Jul-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	77	50	mg/L	Instantaneous Maximum
Jul-21	Total Suspended Solids	120	35	mg/L	Average Monthly
Jul-21	Total Suspended Solids	168	70	mg/L	Instantaneous Maximum
Apr-21	Ammonia-Nitrogen	16.9	5	mg/L	Average Monthly
Apr-21	Ammonia-Nitrogen	17.2	10	mg/L	Instantaneous Maximum
Apr-21	Total Nitrogen	18.4	5	mg/L	Average Monthly
Apr-21	Total Nitrogen	20	10	mg/L	Instantaneous Maximum
Apr-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	127	50	mg/L	Instantaneous Maximum
Apr-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	80.4	25	mg/L	Average Monthly
Mar-21	Ammonia-Nitrogen	12.5	5	mg/L	Average Monthly
Mar-21	Ammonia-Nitrogen	14	10	mg/L	Instantaneous Maximum
Mar-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	15.5	10	mg/L	Average Monthly

MON_PD	PARAMETER	SAMPLE	PERMIT	UNIT	STAT_BASE_CODE
Mar-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	37	20	mg/L	Instantaneous Maximum
Mar-21	Total Nitrogen	15.5	5	mg/L	Average Monthly
Mar-21	Total Nitrogen	23	10	mg/L	Instantaneous Maximum
Mar-21	Total Phosphorus	1.1	1	mg/L	Instantaneous Maximum
Mar-21	Total Suspended Solids	19.5	10	mg/L	Average Monthly
Mar-21	Total Suspended Solids	45	20	mg/L	Instantaneous Maximum
Mar-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	57	25	mg/L	Average Monthly
Mar-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	67	50	mg/L	Instantaneous Maximum
Mar-21	Total Suspended Solids	54	35	mg/L	Average Monthly
Feb-21	Ammonia-Nitrogen	29.9	5	mg/L	Average Monthly
Feb-21	Ammonia-Nitrogen	35.4	10	mg/L	Instantaneous Maximum
Feb-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	23.6	10	mg/L	Average Monthly
Feb-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	33.5	20	mg/L	Instantaneous Maximum
Feb-21	Total Nitrogen	31	5	mg/L	Average Monthly
Feb-21	Total Nitrogen	49.2	10	mg/L	Instantaneous Maximum
Feb-21	Total Phosphorus	1.2	1	mg/L	Instantaneous Maximum
Feb-21	Total Suspended Solids	15.5	10	mg/L	Average Monthly
Feb-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	38.9	25	mg/L	Average Monthly
Feb-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	64.9	50	mg/L	Instantaneous Maximum
Feb-21	Total Suspended Solids	54.5	35	mg/L	Average Monthly
Jan-21	Ammonia-Nitrogen	15.9	5	mg/L	Average Monthly
Jan-21	Ammonia-Nitrogen	19	10	mg/L	Instantaneous Maximum
Jan-21	Total Nitrogen	16.6	5	mg/L	Average Monthly
Jan-21	Total Nitrogen	21.6	10	mg/L	Instantaneous Maximum
Jan-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	107	25	mg/L	Average Monthly
Jan-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	107	50	mg/L	Instantaneous Maximum
Jan-21	Total Suspended Solids	362	35	mg/L	Average Monthly
Jan-21	Total Suspended Solids	362	70	mg/L	Instantaneous Maximum
Jan-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	178	25	mg/L	Average Monthly
Jan-21	Carbonaceous Biochemical Oxygen Demand (CBOD5)	178	50	mg/L	Instantaneous Maximum
Jan-21	Total Suspended Solids	504	35	mg/L	Average Monthly
Jan-21	Total Suspended Solids	504	70	mg/L	Instantaneous Maximum
Dec-20	Ammonia-Nitrogen	13.6	10	mg/L	Instantaneous Maximum
Dec-20	Ammonia-Nitrogen	8	5	mg/L	Average Monthly
Dec-20	Total Nitrogen	14.4	5	mg/L	Average Monthly
Dec-20	Total Nitrogen	14.6	10	mg/L	Instantaneous Maximum
Dec-20	Total Suspended Solids	39	35	mg/L	Average Monthly
Dec-20	Total Suspended Solids	104	70	mg/L	Instantaneous Maximum
Dec-20	Total Suspended Solids	77	35	mg/L	Average Monthly
Nov-20	Carbonaceous Biochemical Oxygen Demand (CBOD5)	29	25	mg/L	Average Monthly
Oct-20	Total Suspended Solids	10.5	10	mg/L	Average Monthly
Oct-20	Total Suspended Solids	21	20	mg/L	Instantaneous Maximum
Sep-20	Carbonaceous Biochemical Oxygen Demand (CBOD5)	29	25	mg/L	Average Monthly
Sep-20	Total Suspended Solids	58	35	mg/L	Average Monthly

MON_PD	PARAMETER	SAMPLE	PERMIT	UNIT	STAT_BASE_CODE
Sep-20	Carbonaceous Biochemical Oxygen Demand (CBOD5)	78	25	mg/L	Average Monthly
Sep-20	Carbonaceous Biochemical Oxygen Demand (CBOD5)	78	50	mg/L	Instantaneous Maximum
Sep-20	Total Suspended Solids	118	35	mg/L	Average Monthly
Sep-20	Total Suspended Solids	118	70	mg/L	Instantaneous Maximum
Aug-20	Carbonaceous Biochemical Oxygen Demand (CBOD5)	18.1	10	mg/L	Average Monthly
Aug-20	Carbonaceous Biochemical Oxygen Demand (CBOD5)	36.2	20	mg/L	Instantaneous Maximum
Aug-20	Total Phosphorus	0.6725	0.5	mg/L	Average Monthly
Aug-20	Total Phosphorus	1.04	1	mg/L	Instantaneous Maximum
Jun-20	Total Nitrogen	7.6	5	mg/L	Average Monthly
May-20	Total Nitrogen	5.1	5	mg/L	Average Monthly
May-20	Total Phosphorus	0.752	0.5	mg/L	Average Monthly
May-20	Total Phosphorus	1.51	1	mg/L	Instantaneous Maximum
Apr-20	Total Nitrogen	12.12	5	mg/L	Average Monthly
Apr-20	Total Nitrogen	18.1	10	mg/L	Instantaneous Maximum
Apr-20	Total Phosphorus	6.6	0.5	mg/L	Average Monthly
Apr-20	Total Phosphorus	6.7	1	mg/L	Instantaneous Maximum
Apr-20	Total Suspended Solids	26	10	mg/L	Average Monthly
Apr-20	Total Suspended Solids	27.2	20	mg/L	Instantaneous Maximum
Mar-20	Total Nitrogen	11.9	10	mg/L	Instantaneous Maximum
Mar-20	Total Nitrogen	6.6	5	mg/L	Average Monthly
Mar-20	Total Phosphorus	2.1	0.5	mg/L	Average Monthly
Mar-20	Total Phosphorus	2.2	1	mg/L	Instantaneous Maximum
Feb-20	Carbonaceous Biochemical Oxygen Demand (CBOD5)	25.1	20	mg/L	Instantaneous Maximum
Feb-20	Total Nitrogen	5.076	5	mg/L	Average Monthly
Feb-20	Carbonaceous Biochemical Oxygen Demand (CBOD5)	63.3	50	mg/L	Instantaneous Maximum
Feb-20	Total Suspended Solids	142	70	mg/L	Instantaneous Maximum
Feb-20	Total Suspended Solids	89	35	mg/L	Average Monthly
Feb-20	Carbonaceous Biochemical Oxygen Demand (CBOD5)	479	50	mg/L	Instantaneous Maximum
Feb-20	Carbonaceous Biochemical Oxygen Demand (CBOD5)	85.9	25	mg/L	Average Monthly
Feb-20	Total Suspended Solids	120	35	mg/L	Average Monthly
Feb-20	Total Suspended Solids	216	70	mg/L	Instantaneous Maximum
Jan-20	Total Nitrogen	6.1	5	mg/L	Average Monthly
Dec-19	Total Suspended Solids	72	70	mg/L	Instantaneous Maximum
Dec-19	Total Suspended Solids	106	70	mg/L	Instantaneous Maximum
Dec-19	Total Suspended Solids	46.6	35	mg/L	Average Monthly
Nov-19	Total Nitrogen	7.1	5	mg/L	Average Monthly
Nov-19	Carbonaceous Biochemical Oxygen Demand (CBOD5)	37.8	25	mg/L	Average Monthly
Nov-19	Total Suspended Solids	75	35	mg/L	Average Monthly
Nov-19	Total Suspended Solids	75	70	mg/L	Instantaneous Maximum
Sep-19	Carbonaceous Biochemical Oxygen Demand (CBOD5)	25.4	25	mg/L	Average Monthly
Sep-19	Total Suspended Solids	44	35	mg/L	Average Monthly
Sep-19	Total Suspended Solids	84	70	mg/L	Instantaneous Maximum
Jul-19	Total Nitrogen	7.4	5	mg/L	Average Monthly
Jul-19	Carbonaceous Biochemical Oxygen Demand (CBOD5)	39.95	25	mg/L	Average Monthly

MON_PD	PARAMETER	SAMPLE	PERMIT	UNIT	STAT_BASE_CODE
Jul-19	Carbonaceous Biochemical Oxygen Demand (CBOD5)	62.4	50	mg/L	Instantaneous Maximum
Jun-19	Total Nitrogen	11.4	10	mg/L	Instantaneous Maximum
Jun-19	Total Nitrogen	7.2	5	mg/L	Average Monthly
Jun-19	Total Suspended Solids	55.5	35	mg/L	Average Monthly
May-19	Total Phosphorus	0.68	0.5	mg/L	Average Monthly
May-19	Total Phosphorus	1.2	1	mg/L	Instantaneous Maximum
May-19	Total Suspended Solids	10.5	10	mg/L	Average Monthly
Apr-19	Total Phosphorus	2.21	0.5	mg/L	Average Monthly
Apr-19	Total Phosphorus	3.5	1	mg/L	Instantaneous Maximum
Apr-19	Carbonaceous Biochemical Oxygen Demand (CBOD5)	28.85	25	mg/L	Average Monthly
Apr-19	Carbonaceous Biochemical Oxygen Demand (CBOD5)	55.8	50	mg/L	Instantaneous Maximum
Mar-19	Carbonaceous Biochemical Oxygen Demand (CBOD5)	32.3	25	mg/L	Average Monthly
Mar-19	Carbonaceous Biochemical Oxygen Demand (CBOD5)	62.7	50	mg/L	Instantaneous Maximum
Feb-19	Total Suspended Solids	114	70	mg/L	Instantaneous Maximum
Feb-19	Total Suspended Solids	58	35	mg/L	Average Monthly
Jan-19	Total Suspended Solids	47	35	mg/L	Average Monthly
Jan-19	Total Suspended Solids	92	70	mg/L	Instantaneous Maximum

Compliance Status: DEP Technical assistance program attended the most recent inspection and Operations is awaiting a proposal from the company on how they intend to reduce effluent exceedances. Facility has no open violations or enforcements, but COA is in draft.

Completed by: Amanda Illar

Completed date: 9/14/23