pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0284858**
Facility Type	**Storm Water**	APS ID	**1060969**
Major / Minor	**Minor**	Authorization ID	**1391991**

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

Applicant and Facility Information

Applicant Name	**ProFrac Services, LLC**	Facility Name	**Eighty-Four Facility**
Applicant Address	333 Shops Boulevard Suite 301 Willow Park, TX 76087-2062	Facility Address	1432 Route 519 Eighty-Four, PA 15330-2843
Applicant Contact	Zachary Ceplecha (Zachary.ceplecha@ftsi.com)	Facility Contact	Same as Applicant
Applicant Phone	(817) 339-3515	Facility Phone	Same as Applicant
Client ID	330833	Site ID	759398
SIC Code	1389	Municipality	North Strabane Township
SIC Description	Mining - Oil and Gas Field Services, Nec.	County	Washington
Date Application Received	July 9, 2012	EPA Waived?	Yes
Date Application Accepted	5/19/2022	If No, Reason	

Purpose of Application: NPDES Permit Coverage for Stormwater Discharge associated with Industrial Activity

Summary of Review

On March 28, 2022 the Department received a transfer application from ProFrac Services, LLC to transfer NPDES Permit PAS316102 from FTS Internationals Services, LLC to ProFrac Services, LLC. NPDES Permit PAS316102 was never issued, therefore the Department will review the application and processes it as a new permit application. The Permit has received a new permit number to reflect current Department permit nomenclature, PA0284858. The Department originally received the new NPDES permit application from FTS Internationals Services, LLC on July 9, 2012.

The site is an oil and gas field services and maintenance facility. The site is primarily engaged in material and equipment storage and maintenance activities. The facility consists of an office/shop building, a warehouse building, a truck wash, a sand transloading area, an acid dock, a gel storage area, and outdoor chemical storage area and parking. Oil products are stored in the shop building. A wash bay is located along the western edge of the property. Two hydrochloric acid aboveground storage tanks (ASTs) are located outside the maintenance shop in the acid dock, above a secondary containment. All the ASTs and totes are stored inside the building or are provided with a secondary containment to contain any spills or leaks. All oil product ASTs are built with secondary containment and/or are stored within the on-site shop building. The chemicals are stored inside the warehouse building, inside the outdoor containment area, or in the above ground storage tanks which are placed over secondary containment. Spills that occur within the building will be contained by the floors and walls. Spills that occur outdoors will be contained by the secondary containment.

The site has two stormwater outfalls. Outfall 001 discharges to Little Chartiers Creek and Outfall 002 discharges to an unnamed tributary to Chartiers Creek, both designated in 25 pa code 93 as a high-quality warm water fishery. All stormwater surface runoff from the site drains in a westwardly direction to a detention pond located on the western property boundary. The total drainage area of the pond is 43.3 acres. Outfall 001 is the discharge of the detention pond. Outfall 002 drainage area consists of 2.7 acres. Minor drainage on the site is comprised of three (3) pipe networks. Network no.1 collects runoff from the southern portion of the site and discharges into the detention pond sidewall. Network no.2 collects runoff from the

Approve	Deny	Signatures	Date
X		Adam Olesnanik / Project Manager	May 19, 2022
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	May 20, 2022

Summary of Review

northern portion of the site and discharges to the detention pond endwall. The third network (Outfall 002) collects water at the entrance of the site and directs flow to an existing 24" RCP culvert under SR 519 which drains into a Municipal Storm Water Sewer System (MS4).

A truck wash is maintained onsite. The truck wash is located within a roofed and enclosed building. Wastewater from the truck wash operations is collected within a sump. Solids from the washing operation are retained in the sump and the effluent is pumped to the POTW sewage system. There is no run-on or runoff from the truck washing operation.

The site discharges stormwater to high-quality water bodies, therefore, anti-degradation must be evaluated. A formal anti-degradation module was not submitted with the original 2012 application; however, the only wastewater that will discharge from the site is stormwater runoff. The Department has determined that there are no technically feasible, cost effective, or environmentally sound alternatives to the stormwater discharge. Non-degrading limitations were not developed or imposed because the discharge consists of stormwater only. To ensure that the discharge does not degrade the receiving streams, no exposure benchmark values will be used in place of the standard stormwater benchmark values in the permit. The goal for the permittee is to consistently achieve these benchmark values; doing this shows that the discharges are uncontaminated stormwater and will maintain and protect the existing quality of the receiving waters. A Part C condition is included in the Draft Permit requiring a Corrective Action Plan when there is an exceedance of the benchmark values, which are also included in the Part C condition. As described above, if there is an exceedance of the benchmark values, a Corrective Action Plan must be conducted to evaluate site stormwater controls and BMPs. Benchmark monitoring is a feedback tool, along with routine inspections and visual assessments, for assessing the effectiveness of stormwater controls and BMPs

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	Varies (Stormwater)
Latitude	40º 13' 1.012"	Longitude	-80º 8' 2.41"
Quad Name	Washington East	Quad Code	1704
Wastewater Description:	Stormwater		

Receiving Waters	Little Chartiers Creek (HQ-WWF)	Stream Code	36943
NHD Com ID	99693982	RMI	7.28
Watershed No.	20-F	Chapter 93 Class.	HQ-WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Nutrients, Siltation		
Source(s) of Impairment	Habitat Modification - Other Than Hydromodification, Urban Runoff/Storm Sewers		
TMDL Status	Final	Name	Chartiers Creek Watershed

Outfall No.	002	Design Flow (MGD)	Varies (Stormwater)
Latitude	40º 12' 52.22"	Longitude	-80º 8' 1.65"
Quad Name	Washington East	Quad Code	1704
Wastewater Description:	Stormwater		

Receiving Waters	Unnamed Tributary to Little Chartiers Creek (HQ-WWF)	Stream Code	36977
NHD Com ID	99694064	RMI	0.26
Watershed No.	20-F	Chapter 93 Class.	HQ-WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status	Final	Name	Chartiers Creek Watershed

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	Varies
Latitude	40º 13' 1.012"	**Longitude**	-80º 8' 2.41"
Outfall No.	002	**Design Flow (MGD)**	Varies
Latitude	40º 12' 52.22"	**Longitude**	-80º 8' 1.65"

Wastewater Description: Stormwater

Technology-Based Limitations

Stormwater Technology Limits

Outfalls 001 and 002 will be subject to PAG-03 General Stormwater Permit conditions as a minimum requirement because the outfalls receive stormwater. The SIC code for the site is 1384 and the corresponding appendix of the PAG-03 that would apply to the facility is Appendix J. The reporting requirements applicable to stormwater discharges are shown in Table 1 below. Along with the monitoring requirements, sector specific BMPs included in Appendix J of the PAG-03 will also be included in Part C of the Draft Permit.

Table 1: PAG-03 Appendix (J) Monitoring Requirements

Parameter	Max Daily Concentration	Measurement Frequency	Sample Type
Total Suspended Solids (TSS)	Monitor and Report	1/6 Months	Grab
Oil and Grease	Monitor and Report	1/6 Months	Grab

Water Quality-Based Limitations

Stormwater WQBELs

Water quality analyses are typically performed under low-flow (Q7-10) conditions. Stormwater discharges occur at variable rates and frequencies but not however during Q7-10 conditions. Since the discharges from Outfalls 001 and 002 are composed entirely of stormwater, a formal water quality analysis cannot be accurately conducted. Accordingly, water quality-based effluent limitations based on water quality analyses are not proposed.

Anti-Degradation

Antidegradation regulations under Chapter 93.4c(a)(l)(i) required discharges to protect the existing use of receiving waters. Chapter 93.4c(b) requires dischargers to consider non-discharge alternatives, public participation and social/economic justification when proposing new, additional or increased discharges to high quality or exceptional value streams. Existing use protection required under Chapter 93.4c(a)(l)(i) is ensured for discharges to high quality streams imposing the most stringent of technology-based, water quality based and non-degrading effluent limitations. In this case, non-degradation effluent limitations are not applicable because the discharge is stormwater only. To ensure that the discharge does not degrade the stream, the no exposure benchmark values will be used as the benchmark value for TSS and Oil and Grease in the permit. The goal for the permittee is to discharge wastewater consistently below these benchmark values; doing this shows that the discharges are uncontaminated stormwater and will maintain and protect the existing quality of the receiving waters.

Total Maximum Daily Loads

The stormwater discharges from the site are located within the Chartiers Creek Watershed for which the Department has developed a TMDL. The TMDL was finalized on April 9, 2003 and establishes waste load allocations for the discharge of aluminum, iron and manganese within the Chartiers Creek Watershed. Section 303(d) of the Clean Water Act and the U.S. Environmental Protection Agency's Water Quality Planning and Management Regulations (codified at Title 40 of the *Code of Federal Regulations* Part 130) require states to develop a TMDL for impaired water bodies. A TMDL establishes the amount of a pollutant that a water body can assimilate without exceeding the water quality criteria for that pollutant. TMDLs provide the scientific basis for a state to establish water quality-based controls to reduce pollution from both point and non-point sources in order to restore and maintain the quality of the state's water resources (USEPA 1991a). Stream reaches within the Chartiers Creek Watershed are included in the state's 1996 and 1998 Section 303(d)

list because of various impairments, including metals, pH and sediment. The TMDL includes consideration for each river and tributary within the target watershed and its impairment sources. Stream data is then used to calculate minimum pollutant reductions that are necessary to attain water quality criteria levels. Target concentrations published in the TMDL were based on established water quality criteria of 0.750 $^{mg}/_{L}$ total recoverable aluminum, 1.5 $^{mg}/_{L}$ total recoverable iron based on a 30-day average and 1.0 $^{mg}/_{L}$ total recoverable manganese. The reduction needed to meet the minimum water quality standards is then divided between each known point and non-point pollutant source in the form of a watershed allocation. TMDLs prescribe allocations that minimally achieve water quality criteria (i.e., 100 percent use of a stream's assimilative capacity). However, because the TMDL was finalized prior the site applying for the NPDES permit, the site did not receive waste load allocations for the discharges from the site. When no allocations are given to site, the criteria is normally imposed. However, only stormwater is discharged from the site, so it is presumed that the parameters are not in the site discharges and that the site discharges do not contribute to the impairment of the watershed. To ensure that the discharges from the site do not contribute to the impairment of the watershed, a monitor and report requirement will be imposed for aluminum, iron and manganese at Outfall 001 and 002.

Anti-Backsliding

This is a new NPDES permit; therefore, anti-backsliding is not applicable.

Proposed Effluent Limitations and Monitoring Requirements

The proposed effluent monitoring requirements for Outfalls 001 and 002 are displayed in Table 2 below, they are the most stringent values from the above effluent limitation development. A Part C condition is included in the Draft Permit requiring submission of a Corrective Action Plan whenever there is an exceedance of the benchmark values, which are also included in the Part C condition. The benchmark values are also displayed below in Table 2. These values are not effluent limitations, an exceedance of the benchmark value is not a violation. As describe above, if there is an exceedance of the benchmark values, a Corrective Action Plan must be developed and submitted to the Department to evaluate site stormwater controls and BMPs. Benchmark monitoring is a feedback tool, along with routine inspections and visual assessments, for assessing the effectiveness of stormwater controls and BMPs. An exceedance of the benchmark provides permittees with an indication that the facility's controls may not be sufficiently controlling pollutants in stormwater. To ensure that the discharge is not degrading the high-quality waters, the no exposure benchmark values will be used as the benchmark values in the permit.

Table 2: Proposed Effluent Monitoring Requirements

Parameter	Max Daily Concentration	Benchmark Values (mg/L)	Measurement Frequency	Sample Type
Total Suspended Solids (TSS)	Monitor and Report	30.0	1/6 Months	Grab
Oil and Grease	Monitor and Report	5.0	1/6 Months	Grab
Total Aluminum	Monitor and Report	XXX	1/6 Months	Grab
Total Iron	Monitor and Report	XXX	1/6 Months	Grab
Total Manganese	Monitor and Report	XXX	1/6 Months	Grab

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☐	Toxics Management Spreadsheet (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 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, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 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, 391-2000-022, 3/1999.
☐	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other: