Pennsylvania Department of Environmental Protection

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0254151**
Facility Type	**Industrial**	APS ID	**1128280**
Major / Minor	**Minor**	Authorization ID	**1511191**

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

Applicant and Facility Information

Applicant Name	**Sprague Energy, LLC**	Facility Name	**Bridge Street Bulk Plant**
Applicant Address	1045 W Chestnut Street	Facility Address	44 Bridge Street
	Washington, PA 15301-4628		Washington, PA 15301-5306
Applicant Contact	Amanda Hoskins	Facility Contact	Same as Applicant
Applicant Phone	(724) 884-2442	Facility Phone	Same as Applicant
Applicant email	ahoskinsi@spragueenergy.com	Facility email	Same as Applicant
Client ID	321124	Site ID	590661
SIC Code	5171	Municipality	Washington City
SIC Description	Wholesale Trade - Petroleum Bulk Stations and Terminals	County	Washington
Date Application Received	December 19, 2024	EPA Waived?	Yes
Date Application Accepted		If No, Reason	
Purpose of Application	Renewal NPDES Permit Coverage		

Summary of Review

The Department received a timely renewal NPDES permit application from Sprague Energy, LLC. on December 19, 2024, for coverage of its facility located in Canton Township, Washington County. The Facility has a SIC Code of 5171 (Petroleum bulk stations and terminals) and North American Industry Classification System Code of 424710 (Petroleum bulk stations and terminals).

The facility handles, stores, and distributes petroleum products such as diesel, gasoline, and heating oil. The facility receives products by common carrier via tanker truck. The products are stored in bulk within aboveground storage tanks (ASTs).

The Bridge Street Bulk Plant (Facility) is a petroleum distribution Facility. Former underground storage tanks (USTs) were removed from the Facility in 1988, and a groundwater treatment system installed at that time to address residual groundwater contamination. The collected groundwater is pumped to the treatment system, which consists of an oil/water separator, sediment filtration and activated carbon treatment before the treated water is discharged to Catfish Creek.

Drainage from the AST loading rack is into a catch basin which leads to the adjacent concrete dike and drainage from the unloading area is into a concrete basin. The concrete dike surrounding the ASTs is periodically drained under direct supervision of Facility personnel. The drainage is provided by manual pumping, as there is no drain located inside the dike system. The accumulated water is pumped out, transported and properly disposed by a certified waste contractor.

Approve	Deny	Signatures	Date
X		Angela Rohrer / Environmental Engineering Specialist	May 28, 2025
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	May 29, 2025

Summary of Review

Outfall 001 discharges stormwater from a paved area adjacent to card-lock fuel dispensers via a single catch basin and subsurface piping. Outfall 002 discharges treated groundwater from a groundwater remediation system. Outfall 003 discharges stormwater from the loading dock area and gravel lot via a single catch basin and subsurface piping.

Sprague Energy proposed modifications to Parts B and C of the permit for clarity and consistency, including:

- Part B.I.D (Proper Operation and Maintenance)
- Part C.II.A
- Part C.III.C (Operation and Maintenance)
- Part C.IV.D (Groundwater cleanup)

The Department considered the proposed changes to Part C. However, Part B contains standard language that can't be modified; if certain requirements don't apply to the facility, they can be disregarded.

The facility was last inspected by Anthony Ascolillo on January 17, 2024.

The facility has no open violations.

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
Latitude	40º 10' 37.16"	Longitude	-80º 15' 37.12"
Quad Name	Washington West	Quad Code	1703
Wastewater Description:	Stormwater		

Receiving Waters	Catfish Creek (WWF)	Stream Code	37132
NHD Com ID	99694618	RMI	0.48
Drainage Area	4.5	Yield (cfs/mi^2)	0.011
Q_{7-10} Flow (cfs)	0.052	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1,018	Slope (ft/ft)	0.006
Watershed No.	20-F	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Metals, nutrients, organic enrichment, siltation, Total Suspended Solids (TSS)		
Source(s) of Impairment	Acid Mine Drainage, agriculture, combined sewer overflows, habitat modification - other than hydromodification, urban runoff/storm sewers.		
TMDL Status	Final	Name	Chartiers Creek

Nearest Downstream Public Water Supply Intake	West View Water Authority (40 MGD)		
PWS Waters	Ohio River	Flow at Intake (cfs)	4,730
PWS RMI	972	Distance from Outfall (mi)	44.66

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	0.0004
Latitude	40º 10' 37.96"	Longitude	-80º 15' 39.93"
Quad Name	Washington West	Quad Code	1703
Wastewater Description:	Groundwater Cleanup Discharge		
Receiving Waters	Catfish Creek (WWF)	Stream Code	37132
NHD Com ID	99694618	RMI	0.42
Drainage Area	4.5	Yield (cfs/mi^2)	0.011
Q_{7-10} Flow (cfs)	0.052	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1,018	Slope (ft/ft)	0.006
Watershed No.	20-F	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Metals, nutrients, organic enrichment, siltation, Total Suspended Solids (TSS)		
Source(s) of Impairment	Acid Mine Drainage, agriculture, combined sewer overflows, habitat modification - other than hydromodification, urban runoff/storm sewers.		
TMDL Status	Final	Name	Chartiers Creek
Nearest Downstream Public Water Supply Intake	West View Water Authority (40 MGD)		
PWS Waters	Ohio River	Flow at Intake (cfs)	4,730
PWS RMI	972	Distance from Outfall (mi)	44.6

Changes Since Last Permit Issuance:

Outfall 002 discharges exclusively treated groundwater from a groundwater remediation system. In previous renewal applications, Outfall 002 was marked as both stormwater and groundwater discharge, however, upon further inspection, no stormwater discharges from Outfall 002.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	003	Design Flow (MGD)	0
Latitude	40º 10' 37.93"	Longitude	-80º 15' 39.76"
Quad Name	Washington West	Quad Code	1703
Wastewater Description:	Stormwater		

Receiving Waters	Catfish Creek (WWF)	Stream Code	37132
NHD Com ID	99694618	RMI	0.44
Drainage Area	4.5	Yield (cfs/mi^2)	0.011
Q_{7-10} Flow (cfs)	0.052	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1,018	Slope (ft/ft)	0.006
Watershed No.	20-F	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Metals, nutrients, organic enrichment, siltation, Total Suspended Solids (TSS)		
Source(s) of Impairment	Acid Mine Drainage, agriculture, combined sewer overflows, habitat modification - other than hydromodification, urban runoff/storm sewers.		
TMDL Status	Final	Name	Chartiers Creek

Nearest Downstream Public Water Supply Intake	West View Water Authority (40 MGD)		
PWS Waters	Ohio River	Flow at Intake (cfs)	4,730
PWS RMI	972	Distance from Outfall (mi)	44.62

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.0 (varied)
Latitude 40º 10' 37.16" **Longitude** -80º 15' 37.12"
Wastewater Description: Stormwater

Outfall No. 003 **Design Flow (MGD)** 0.0 (varied)
Latitude 40º 10' 37.93" **Longitude** -80º 15' 39.76"
Wastewater Description: Stormwater

Technology-Based Limitations

Stormwater Technology Limits

Outfalls 001 and 003 will be subject to PAG-03 General Stormwater Permit conditions because they discharge stormwater associated with industrial activity. Based on the site's SIC code, the corresponding appendix that would apply to the facility is Appendix L of the PAG-03. The proposed monitoring requirements are shown in Table 1 below. The benchmark values listed below are not effluent limitations, and exceedances do not constitute permit violations. However, if the permittee's sampling demonstrates exceedances of benchmark values for two consecutive monitoring periods, the permittee shall submit a Corrective Action Plan. This requirement will be included in Part C of the permit.

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

Parameters	Monitoring Requirements		Benchmark Values
	Minimum Measurement Frequency	Sample Type	
Total Nitrogen (mg/L)	1 / 6 Months	Calculation	XXX
Total Phosphorus (mg/L)	1 / 6 Months	Grab	XXX
Total Suspended Solids (TSS) (mg/L)	1 / 6 Months	Grab	100
Oil and Grease (mg/L)	1 / 6 Months	Grab	30.0

Outfall 001: Pursuant to review of sample data submitted in the application and DMRs, elevated concentrations of TSS have been detected at Outfall 001 (See Table 2). Despite the facility's implementation of additional BMPs, the data indicates these measures have been ineffective. Consequently, the monitoring frequency for Total Suspended Solids will be increased to quarterly to ensure that the quality of the discharge from Outfall 001 meets the benchmark values established in the permit.

Outfall 003: Pursuant to the review of sample data submitted in the application and DMRs, elevated concentrations of Total Suspended Solids (TSS) were detected at Outfall 003 (See Table 2). In response, the facility implemented additional Best Management Practices (BMPs), including weekly street sweeping of concrete pavement around the storm drain and cleaning of pavement surfaces prior to heavy rainfall events. These measures appeared effective, as evidenced by sample data from the second monitoring period of 2023 and the first monitoring period of 2024, where the facility met the benchmark value. However, during the second monitoring period of 2024, the facility again exceeded the benchmark value. Given that Catfish Creek is impaired for TSS, it is recommended that the existing BMPs in the drainage area of Outfall 003 be maintained and additional BMPs be implemented as necessary to ensure compliance with the benchmark value and to protect the water quality of Catfish Creek.

Table 2: Benchmark exceedances summary at Outfalls 001 and 003

PARAMETER	MONITORING PERIOD	VALUE mg/L		BENCHMARK VALUE mg/L
		Outfall 001	Outfall 003	
Total Suspended Solids	1/1/2021 - 6/30/2021	800	150	100
	7/1/2021 - 12/31/2021	390	180	
	1/1/2022 - 6/30/2022	420	2300	
	7/1/2022 - 12/31/2022	240	610	
	1/1/2023 - 6/30/2022	370	1100	
	7/1/2023 - 12/31/2023	600	82	
	1/1/2024 - 6/30/2024	2.6	82	
	7/1/2025 - 12/31/2025	140	210	

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 discharge from Outfalls 001 and 003 is 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.

Total Maximum Daily Load (TMDL)

Discharges from Sprague Energy Bridge Street Bulk Plant are located within the Chartiers Creek Watershed for which two TMDLs have been developed: one addressing PCBs and Chlordane, and another addressing metals (aluminum, iron and manganese).

- **TMDL for PCBs and Chlordane**: The facility does not discharge PCBs or Chlordane to the specific section of Chartiers Creek addressed by the TMDLs. As a result, the TMDL will not be applicable to the facility's stormwater discharge. Part C18 condition will be added to the permit that states, “There shall be no discharge of polychlorinated biphenyl (PCB) compounds such as those commonly used for transformer fluid at any time”.

- **TMDL for metals (aluminum, iron & manganese):** The Chartiers Creek Watershed TMDL was finalized on April 9, 2003, and regulates the discharge of aluminum, iron, and manganese primarily from abandoned mine discharges within the Chartiers Creek Watershed. 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 TMDL does not include a specific wasteload allocation for Energy Bridge Street Blk Plant.

  Based on the sample data provided with the application, Aluminum and Iron are identified as pollutants of concern.

  Outfall 001: The discharge concentration of Aluminum exceeds the in-stream water quality criteria and TMDL limitations, while Iron concentrations are at the limit of TMDL limitations.

  Outfall 003: The discharge concentration of Aluminum and Iron exceeds the in-stream water quality criteria and TMDL limitations.

  Notably, Catfish Creek, which ultimately discharges to Chartiers Creek, is also impaired by metals. Given these findings, the Draft permit will include a monitoring requirement for Total Aluminum and Total Iron, with respective benchmark values of 0.75 mg/L and 3.75 mg/L

Table 3: Chartiers Creek Watershed TMDL

Parameter	Discharge Concentrations		TMDL Limits		Units
	Outfall 001	Outfall 003	Average Monthly	Daily Maximum	
Aluminum, total	1.9	2.3	0.75	0.75	mg/L
Iron, total	3.00	4.00	1.5	3.0	mg/L
Manganese, total	0.19	0.19	1.0	2.0	mg/L

Anti-Backsliding

Previous limits can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(l) and are displayed below in Table 4. These limitations are currently imposed on Outfalls 001 and 003.

Table 4: Current Effluent Limitation at Outfalls 001 and 003

Parameter	Mass Units (lb/day)		Concentrations (mg/L)				Monitoring Requirements	
	Average Monthly	Daily Maximum	Instant Minimum	Average Monthly	Daily Maximum	Instantaneous Maximum	Sample Frequency	Sample Type
Total Suspended Solids	-	-	-	-	Report	-	1/6 months	Grab
Oil and Grease	-	-	-	-	Report	-	1/6 months	Grab

Proposed Effluent Limitations and Monitoring Requirements

Pursuant to the 2021 Multi-Sector General Permit (MSGP) for stormwater discharges associated with industrial activity, the EPA has established a benchmark concentration for Total Copper of 5.19 µg/L. The facility reported a concentration of 22 µg/L at Outfall 001 (exceeding the benchmark value by more than four times) and 13 µg/L at Outfall 003. Therefore, a monitoring requirement for Total Copper will be included in the Draft Permit to protect receiving water quality.

Outfalls 001 and 003 will be subject to the semi-annual monitoring requirements in Appendix L of the PAG-03 General Permit. The proposed effluent monitoring requirements for Outfalls 001 are displayed in Tables 5 and 6 below. A Part C condition is included in the Draft Permit requiring development and submission of a Corrective Action Plan whenever there are two or more consecutive exceedances of the benchmark values, which are also included in the Part C condition. The benchmark values are also displayed below in Tables 5 and 6. These values are not effluent limitations; an exceedance of the benchmark value is not a violation. 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.

Table 5: Proposed Final Effluent Limitation at Outfalls 001

Parameters	Concentration (mg/l)				Measurement Frequency	Sample Type	Benchmark Values (mg/L)
	Minimum	Average Monthly	Daily Maximum	Instant. Maximum			
Total Nitrogen	XXX	XXX	Report	XXX	1/6 Months	Calculation	XXX
Total Phosphorus	XXX	XXX	Report	XXX	1/6 Months	Grab	XXX
Total Suspended Solids (TSS)	XXX	XXX	Report	XXX	1/ Quarter	Grab	100
Oil and Grease	XXX	XXX	Report	XXX	1/6 Months	Grab	30
Total Copper	XXX	XXX	Report	XXX	1/6 Months	Grab	0.051
Total Aluminum	XXX	XXX	Report	XXX	1/6 Months	Grab	0.75
Total Iron	XXX	XXX	Report	XXX	1/6 Months	Grab	3.75

Table 6: Proposed Final Effluent Limitation at Outfalls 003

Parameters	Concentration (mg/l)				Measurement Frequency	Sample Type	Benchmark Values (mg/L)
	Minimum	Average Monthly	Daily Maximum	Instant. Maximum			
Total Nitrogen	XXX	XXX	Report	XXX	1/6 Months	Calculation	XXX
Total Phosphorus	XXX	XXX	Report	XXX	1/6 Months	Grab	XXX
Total Suspended Solids (TSS)	XXX	XXX	Report	XXX	1/6 Months	Grab	100
Oil and Grease	XXX	XXX	Report	XXX	1/6 Months	Grab	30
Total Copper	XXX	XXX	Report	XXX	1/6 Months	Grab	0.051
Total Aluminum	XXX	XXX	Report	XXX	1/6 Months	Grab	0.75
Total Iron	XXX	XXX	Report	XXX	1/6 Months	Grab	3.75

Development of Effluent Limitations

Outfall No. 002 **Design Flow (MGD)** 0.0072
Latitude 40º 10' 39.40" **Longitude** -80º 15' 39.20"
Wastewater Description: Groundwater Cleanup Discharge

Technology-Based Limitations

Outfall 002 will be subject to PAG-05 General Petroleum Product Contaminated Groundwater Remediation Permit conditions as a minimum requirement because the outfall receives discharge from a groundwater remediation system. The reporting requirements applicable to groundwater remediation system discharges are shown in Table 7 below.

Table 7: PAG-05 Effluent Limitations

Parameter	Effluent Limitations (mg/L)				Monitoring Requirements	
	Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Measurement Frequency	Required Sample Type
Flow (MGD)	XXX	Report	Report	XXX	1/month	Measured
pH (S.U.)	6.0	XXX	XXX	9.0	1/month	Grab
TSS	XXX	30	XXX	75	1/month	Grab
Oil and Grease	XXX	15	XXX	30	1/month	Grab
Dissolved Iron	XXX	XXX	XXX	7.0	1/year	Grab
Benzene	XXX	0.001	XXX	0.0025	1/month	Grab
Total BTEX	XXX	0.1	XXX	0.25	1/month	Grab
MTBE	XXX	Report	XXX	Report	1/month	Grab

Water Quality-Based Limitations

Toxics Management Spread Sheet

The Department of Environmental Protection (DEP) has developed the DEP Toxics Management Spreadsheet ("TMS") to facilitate calculations necessary for completing a reasonable potential (RP) analysis and determining water quality-based effluent limitations for discharges of toxic pollutants. The Toxics Management Spreadsheet is a macro-enabled Excel binary file that combines the functions of the PENTOXSD model and the Toxics Screening Analysis spreadsheet to evaluate the reasonable potential for discharges to cause excursions above water quality standards and to determine WQBELs. The Toxics Management Spread Sheet is a single discharge, mass-balance water quality calculation spread sheet that includes consideration for mixing, first-order decay and other factors to determine recommended WQBELs for toxic substances and several non-toxic substances. Required input data including stream code, river mile index, elevation, drainage area, discharge name, NPDES permit number, discharge flow rate and the discharge concentrations for parameters in the permit application or in DMRs, which are entered into the spread sheet to establish site-specific discharge conditions. Other data such as low flow yield, reach dimensions and partial mix factors may also be entered to further characterize the conditions of the discharge and receiving water. Discharge concentrations for the parameters are chosen to represent the "worst case" quality of the discharge (i.e., maximum reported discharge concentrations). The spread sheet then evaluates each parameter by computing a Waste Load Allocation for each applicable criterion, determining a recommended maximum WQBEL and comparing that recommended WQBEL with the input discharge concentration to determine which is more stringent. Based on this evaluation, the Toxics Management Spread sheet recommends average monthly and maximum daily WQBELs.

Reasonable Potential Analysis and WQBEL Development for Outfall 002

Discharges from Outfall 002 are evaluated based on concentrations reported on the application and on DMRs; data from those sources are entered into the Toxics Management Spread Sheet. The maximum reported value of the parameters from the application form or from previous DMRs is used as the input concentration in the Toxics Management Spread Sheet. All toxic pollutants whose maximum concentrations, as reported in the permit application or on DMRs, are greater than the most stringent applicable water quality criteria are considered to be pollutants of concern. [This includes pollutants reported as "Not Detectable" or as "<MDL" where the method detection limit for the analytical method used by the applicant is greater than the most stringent water quality criterion]. The Toxics Management Spread Sheet is run with the discharge and receiving stream characteristics shown in Table 8. For IW discharges, the design flow used in modeling is the average flow during production or operation taken from the permit application. Pollutants for which water quality standards have not been promulgated (e.g., TSS, oil and grease) are excluded from the analysis. All the parameters are evaluated using the model to determine the water quality-based effluent limits applicable to the discharge and the receiving stream. The spreadsheet then compares the reported discharge concentrations to the calculated water quality-based effluent limitations to determine if a reasonable potential exists to exceed the calculated WQBELs. Effluent limitations are established in the draft permit where a pollutant's maximum reported discharge concentration equals or exceeds 50% of the WQBEL. For non-conservative pollutants, monitoring requirements are established where the maximum reported concentration is between 25% - 50% of the WQBEL. For conservative pollutants, monitoring requirements are established where the maximum reported concentration is between 10% - 50% of the WQBEL. The information described above including the maximum reported discharge concentrations, the most stringent water quality criteria, the pollutant-of-concern (reasonable potential) determinations, the calculated WQBELs, and the WQBEL/monitoring recommendations are displayed in the Toxics Management Spread Sheet in Attachment D of this Fact Sheet.

Table 8: TMS Inputs for Outfall 002

Parameter	**Value**
River Mile Index	0.42
Discharge Flow (MGD)	0.0004
Basin/Stream Characteristics	
Parameter	**Value**
Area in Square Miles	4.5
Q_{7-10} (cfs)	0.052
Low-flow yield (cfs/mi^2)	0.011
Elevation (ft)	1,018
Slope	0.006

The Toxics Management Spread Sheet indicates that new WQBELs are needed for Dissolved Iron.

Table 9: Water Quality Based Effluent Limitation (WQBELs) at Outfall 002

Parameter	**Mass Limits**		**Concentration Limits**			**Discharge Concentrations (mg/L)**
	Average Monthly (lb/day)	**Maximum Daily (lb/day)**	**Average Monthly (mg/L)**	**Maximum Daily (mg/L)**	**IMAX (mg/L)**	
Dissolved Iron	0.085	0.13	25.5	39.8	63.8	31.0

Total Maximum Daily Load (TMDL)

Discharges from Sprague Energy Bridge Street Blk Plant are located within the Chartiers Creek Watershed for which two TMDL have been developed: one addressing PCBs and Chlordane, and another addressing metals (aluminum, iron & manganese).

- **TMDL for PCBs and Chlordane**: The facility does not discharge PCBs or Chlordane to the specific section of Chartiers Creek addressed by the TMDLs. As a result, the TMDL will not be applicable to the facility's stormwater discharge. Part C18 condition will be added to the permit that states, "There shall be no discharge of polychlorinated biphenyl (PCB) compounds such as those commonly used for transformer fluid at any time".

- **TMDL for metals (aluminum, iron & manganese):** The Chartiers Creek Watershed TMDL was finalized on April 9, 2003, and regulates the discharge of aluminum, iron, and manganese primarily from abandoned mine discharges within the Chartiers Creek Watershed. 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 TMDL does not include a specific wasteload allocation for Energy Bridge Street Blk Plant.

To ensure the facility does not contribute to the impairment, monitoring of total aluminum, iron and manganese will be imposed.

Anti-Backsliding

Previous limits can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(l) and are displayed below in Table 10. These limitations are currently imposed on Outfall 002.

Table 10: Current Effluent Limitation at Outfalls 002

Parameter	Mass Units (lb/day)		Concentrations (mg/L)				Monitoring Requirements	
	Average Monthly	Daily Maximum	Instant Minimum	Average Monthly	Daily Maximum	Instantaneous Maximum	Sample Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/month	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/month	Grab
Total Suspended Solids	XXX	XXX	XXX	30.0	XXX	75.0	1/month	Grab
Oil and Grease	XXX	XXX	XXX	15.0	XXX	30.0	1/month	Grab
Iron, Dissolved	XXX	XXX	XXX	XXX	XXX	7.0	1/year	Grab
Benzene	XXX	XXX	XXX	0.001	XXX	0.0025	1/month	Grab
BTEX, Total	XXX	XXX	XXX	0.1	XXX	0.25	1/month	Grab
MTBE	XXX	XXX	XXX	Report	XXX	Report	1/month	Grab

Proposed Effluent Limitations and Monitoring Requirements

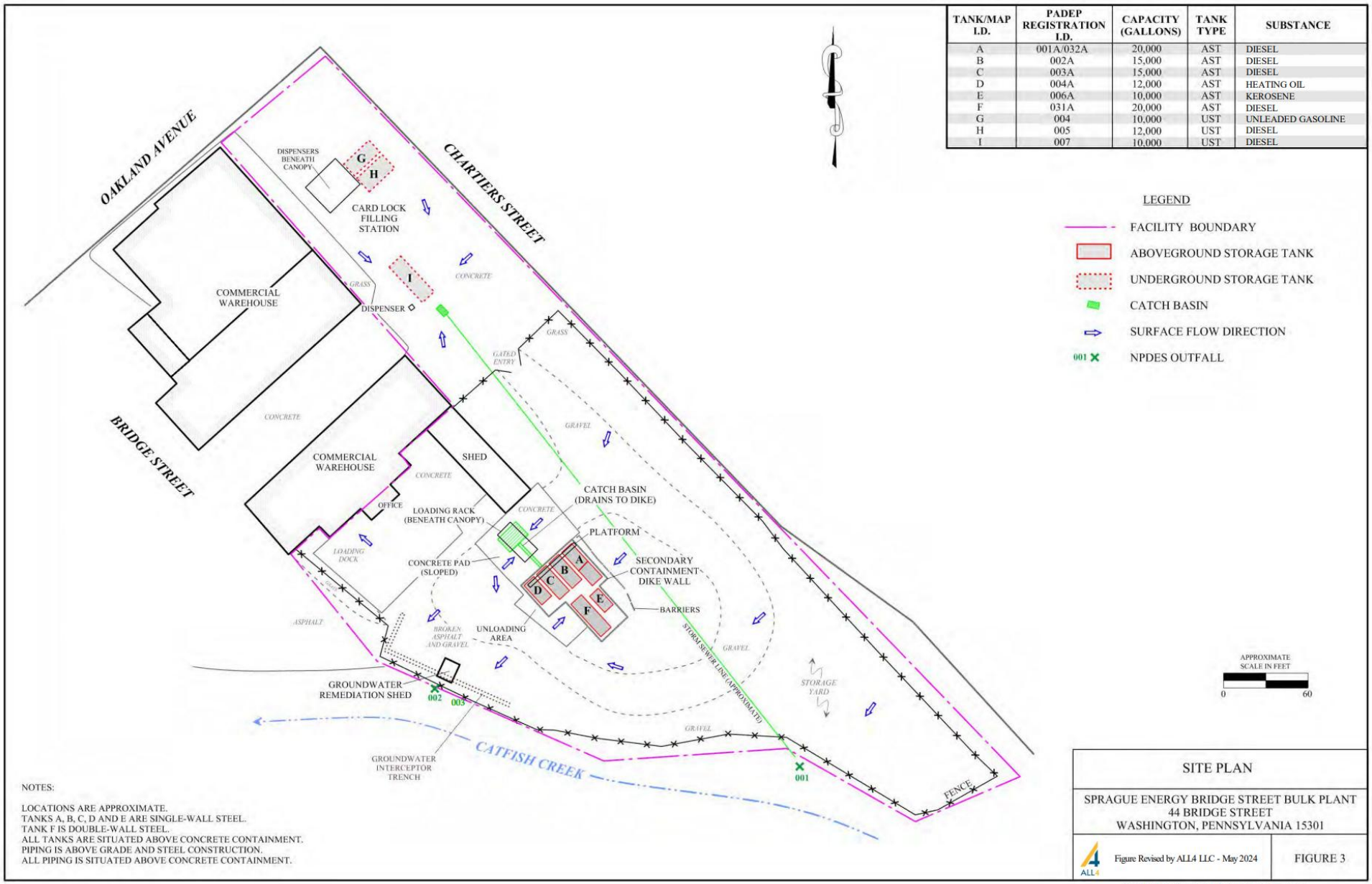
Table 11 outlines the proposed effluent limitations and monitoring requirements for Outfall 002, reflecting the most stringent values from the limitation analysis. The current Dissolved Iron limit of 7 mg/L remains in effect, as it is more stringent than the recommended WQBEL. However, given the recent exceedances, monitoring frequency will increase from annually to semiannually.

Table 11: Proposed Final Effluent Limitation at Outfalls 002

Parameter	Mass Units (lb/day)		Concentrations (mg/L)				Monitoring Requirements	
	Average Monthly	Daily Maximum	Instant Minimum	Average Monthly	Daily Maximum	Instantaneous Maximum	Sample Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/month	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/month	Grab
Total Suspended Solids	XXX	XXX	XXX	30.0	XXX	75.0	1/month	Grab
Oil and Grease	XXX	XXX	XXX	15.0	XXX	30.0	1/month	Grab
Iron, Dissolved	XXX	XXX	XXX	XXX	XXX	7.0	1/6 months	Grab
Benzene	XXX	XXX	XXX	0.001	XXX	0.0025	1/month	Grab
BTEX, Total	XXX	XXX	XXX	0.1	XXX	0.25	1/month	Grab
MTBE	XXX	XXX	XXX	Report	XXX	Report	1/month	Grab
Aluminum, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Manganese, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☒	Toxics Management Spreadsheet (see Attachment D)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☐	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
☐	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other:

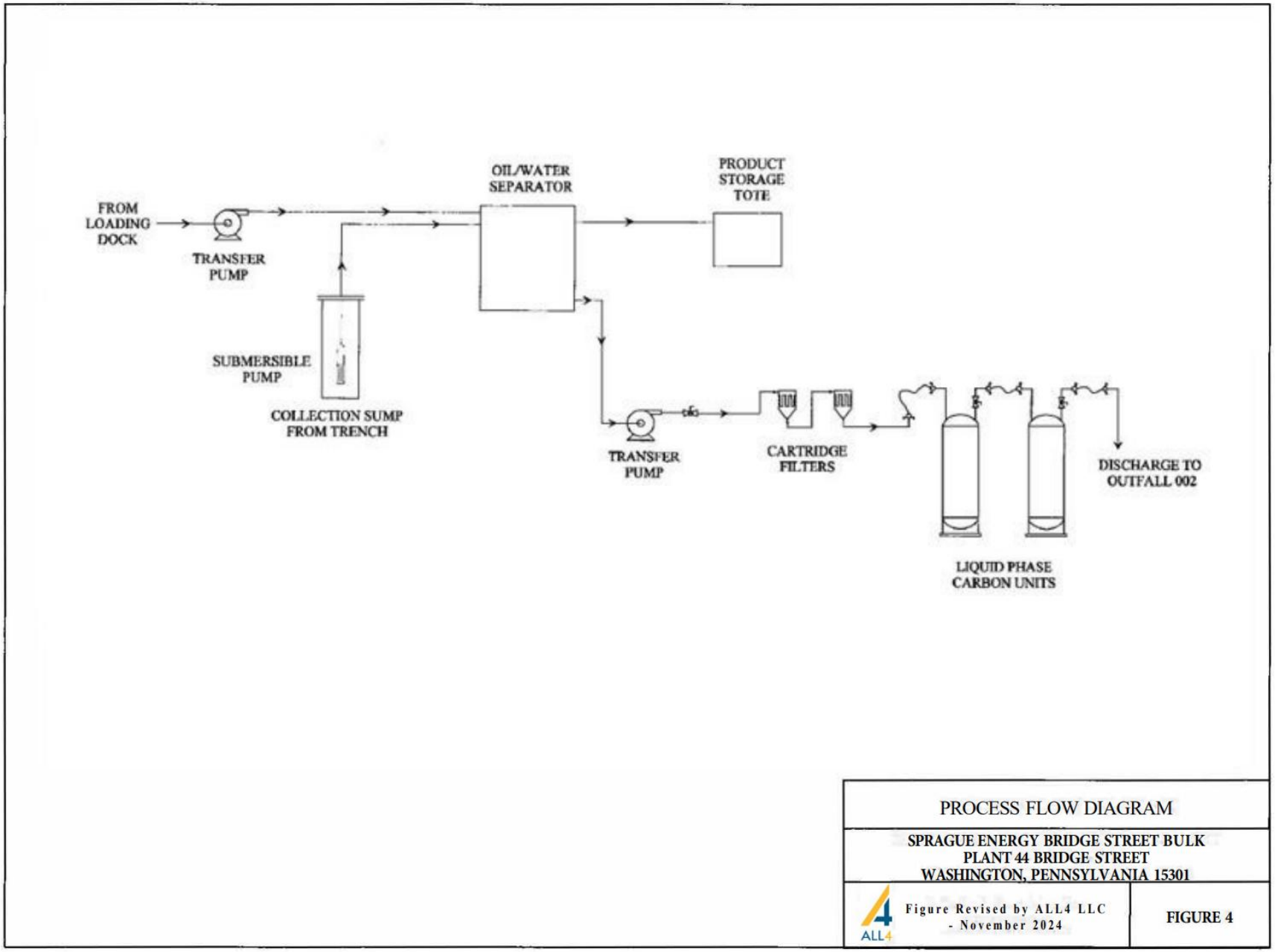
ATTACHMENT A.
Site Plan



TANK/MAP I.D.	PADEP REGISTRATION I.D.	CAPACITY (GALLONS)	TANK TYPE	SUBSTANCE
A	001A/032A	20,000	AST	DIESEL
B	002A	15,000	AST	DIESEL
C	003A	15,000	AST	DIESEL
D	004A	12,000	AST	HEATING OIL
E	006A	10,000	AST	KEROSENE
F	031A	20,000	AST	DIESEL
G	004	10,000	UST	UNLEADED GASOLINE
H	005	12,000	UST	DIESEL
I	007	10,000	UST	DIESEL

Original Figure Courtesy of Letterle & Associates, Inc.

ATTACHMENT B.
Process Flow Diagram


FROM LOADING DOCK
TRANSFER PUMP
OIL/WATER SEPARATOR
PRODUCT STORAGE TOTE
SUBMERSIBLE PUMP
COLLECTION SUMP FROM TRENCH
TRANSFER PUMP
CARTRIDGE FILTERS
DISCHARGE TO OUTFALL 002
LIQUID PHASE CARBON UNITS
PROCESS FLOW DIAGRAM
SPRAGUE ENERGY BRIDGE STREET BULK
PLANT 44 BRIDGE STREET
WASHINGTON, PENNSYLVANIA 15301
ALL4
Figure Revised by ALL4 LLC - November 2024
FIGURE 4

ATTACHMENT C
StreamStats Report

PA0254151 - Sprague Energy - StreamStats Report

Region ID: PA
Workspace ID: PA20250305113514420000
Clicked Point (Latitude, Longitude): 40.17702, -80.26032
Time: 2025-03-05 06:35:40 -0500

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	0	percent
DRNAREA	Area that drains to a point on a stream	4.5	square miles
ELEV	Mean Basin Elevation	1188	feet
FOREST	Percentage of area covered by forest	16.8864	percent
PRECIP	Mean Annual Precipitation	39	inches
URBAN	Percentage of basin with urban development	72.2686	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.5	square miles	2.26	1400
ELEV	Mean Basin Elevation	1188	feet	1050	2580

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

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	0.155	ft^3/s	43	43

Statistic	Value	Unit	SE	ASEp
30 Day 2 Year Low Flow	0.278	ft^3/s	38	38
7 Day 10 Year Low Flow	0.0522	ft^3/s	66	66
30 Day 10 Year Low Flow	0.0998	ft^3/s	54	54
90 Day 10 Year Low Flow	0.189	ft^3/s	41	41

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Base Flow Statistics

Base Flow Statistics Parameters [Statewide Mean and Base Flow]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CARBON	Percent Carbonate	0	percent	0	99
DRNAREA	Drainage Area	4.5	square miles	2.26	1720
FOREST	Percent Forest	16.8864	percent	5.1	100
PRECIP	Mean Annual Precipitation	39	inches	33.1	50.4
URBAN	Percent Urban	72.2686	percent	0	89

Base Flow Statistics Flow Report [Statewide Mean and Base Flow]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
Base Flow 10 Year Recurrence Interval	1.66	ft^3/s	21	21
Base Flow 25 Year Recurrence Interval	1.46	ft^3/s	21	21
Base Flow 50 Year Recurrence Interval	1.35	ft^3/s	23	23

Base Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Application Version: 4.28.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

Attachment D: Toxic Management Spreadsheet for Outfall 002

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Toxics Management Spreadsheet
Version 1.4, May 2023

Discharge Information

Instructions | Discharge | Stream

Facility: **Sprague Energy Bridge Street Blk Plant** NPDES Permit No.: **PA0254151** Outfall No.: **002**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Treated Groundwater from trench**

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
0.0004	100	7.9						

					0 if left blank		0.5 if left blank		0 if left blank			1 if left blank	
	Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Group 1	Total Dissolved Solids (PWS)	mg/L											
	Chloride (PWS)	mg/L											
	Bromide	mg/L											
	Sulfate (PWS)	mg/L											
	Fluoride (PWS)	mg/L											
Group 2	Total Aluminum	µg/L											
	Total Antimony	µg/L	<										
	Total Arsenic	µg/L	<										
	Total Barium	µg/L											
	Total Beryllium	µg/L	<										
	Total Boron	µg/L											
	Total Cadmium	µg/L											
	Total Chromium (III)	µg/L	<										
	Hexavalent Chromium	µg/L	<										
	Total Cobalt	µg/L	<										
	Total Copper	µg/L	<										
	Free Cyanide	µg/L											
	Total Cyanide	µg/L	<										
	Dissolved Iron	mg/L		31									
	Total Iron	µg/L											
	Total Lead	µg/L											
	Total Manganese	µg/L											
	Total Mercury	µg/L											
	Total Nickel	µg/L											
	Total Phenols (Phenolics) (PWS)	µg/L	<										
	Total Selenium	µg/L	<										
	Total Silver	µg/L	<										
	Total Thallium	µg/L											
	Total Zinc	µg/L											
	Total Molybdenum	µg/L											
	Acrolein	µg/L	<										
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<										
	Benzene	mg/L	<	0.001									
	Bromoform	µg/L	<										
	Carbon Tetrachloride	µg/L	<										
	Chlorobenzene	µg/L											
	Chlorodibromomethane	µg/L	<										
	Chloroethane	µg/L	<										
	2-Chloroethyl Vinyl Ether	µg/L	<										

Group 3	Chloroform	µg/L	<										
	Dichlorobromomethane	µg/L	<										
	1,1-Dichloroethane	µg/L	<										
	1,2-Dichloroethane	µg/L	<										
	1,1-Dichloroethylene	µg/L	<										
	1,2-Dichloropropane	µg/L	<										
	1,3-Dichloropropylene	µg/L	<										
	1,4-Dioxane	µg/L	<										
	Ethylbenzene	mg/L	<	0.001									
	Methyl Bromide	µg/L	<										
	Methyl Chloride	µg/L	<										
	Methylene Chloride	µg/L	<										
	1,1,2,2-Tetrachloroethane	µg/L	<										
	Tetrachloroethylene	mg/L	<	0.001									
	Toluene	mg/L	<	0.001									
	1,2-trans-Dichloroethylene	µg/L	<										
	1,1,1-Trichloroethane	µg/L	<										
	1,1,2-Trichloroethane	µg/L	<										
	Trichloroethylene	mg/L	<	0.001									
	Vinyl Chloride	mg/L	<	0.001									
Group 4	2-Chlorophenol	µg/L	<										
	2,4-Dichlorophenol	µg/L	<										
	2,4-Dimethylphenol	µg/L	<										
	4,6-Dinitro-o-Cresol	µg/L	<										
	2,4-Dinitrophenol	µg/L	<										
	2-Nitrophenol	µg/L	<										
	4-Nitrophenol	µg/L	<										
	p-Chloro-m-Cresol	µg/L	<										
	Pentachlorophenol	µg/L	<										
	Phenol	µg/L	<										
	2,4,6-Trichlorophenol	µg/L	<										
Group 5	Acenaphthene	µg/L	<										
	Acenaphthylene	µg/L	<										
	Anthracene	µg/L	<										
	Benzidine	µg/L	<										
	Benzo(a)Anthracene	mg/L	<	0.0018									
	Benzo(a)Pyrene	mg/L	<	0.0018									
	3,4-Benzofluoranthene	µg/L	<										
	Benzo(ghi)Perylene	mg/L	<	0.0018									
	Benzo(k)Fluoranthene	mg/L	<	0.0018									
	Bis(2-Chloroethoxy)Methane	µg/L	<										
	Bis(2-Chloroethyl)Ether	µg/L	<										
	Bis(2-Chloroisopropyl)Ether	µg/L	<										
	Bis(2-Ethylhexyl)Phthalate	µg/L	<										
	4-Bromophenyl Phenyl Ether	µg/L	<										
	Butyl Benzyl Phthalate	µg/L	<										
	2-Chloronaphthalene	µg/L	<										
	4-Chlorophenyl Phenyl Ether	µg/L	<										
	Chrysene	mg/L	<	0.0018									
	Dibenzo(a,h)Anthrancene	µg/L	<										
	1,2-Dichlorobenzene	µg/L	<										
	1,3-Dichlorobenzene	µg/L	<										
	1,4-Dichlorobenzene	µg/L	<										
	3,3-Dichlorobenzidine	µg/L	<										
	Diethyl Phthalate	µg/L	<										
	Dimethyl Phthalate	µg/L	<										
	Di-n-Butyl Phthalate	µg/L	<										
	2,4-Dinitrotoluene	µg/L	<										
	2,6-Dinitrotoluene	µg/L	<										
	Di-n-Octyl Phthalate	µg/L	<										
	1,2-Diphenylhydrazine	µg/L	<										
	Fluoranthene	µg/L	<										
	Fluorene	µg/L	<										
	Hexachlorobenzene	µg/L	<										
	Hexachlorobutadiene	µg/L	<										
	Hexachlorocyclopentadiene	µg/L	<										
	Hexachloroethane	µg/L	<										

	Indeno(1,2,3-cd)Pyrene	mg/L	<	0.0018									
	Isophorone	µg/L	<										
	Naphthalene	mg/L	<	0.0018									
	Nitrobenzene	µg/L	<										
	n-Nitrosodimethylamine	µg/L	<										
	n-Nitrosodi-n-Propylamine	µg/L	<										
	n-Nitrosodiphenylamine	µg/L	<										
	Phenanthrene	mg/L	<	0.0018									
	Pyrene	mg/L	<	0.0018									
	1,2,4-Trichlorobenzene	µg/L	<										
Group 6	Aldrin	µg/L	<										
	alpha-BHC	µg/L	<										
	beta-BHC	µg/L	<										
	gamma-BHC	µg/L	<										
	delta BHC	µg/L	<										
	Chlordane	µg/L	<										
	4,4-DDT	µg/L	<										
	4,4-DDE	µg/L	<										
	4,4-DDD	µg/L	<										
	Dieldrin	µg/L	<										
	alpha-Endosulfan	µg/L	<										
	beta-Endosulfan	µg/L	<										
	Endosulfan Sulfate	µg/L	<										
	Endrin	µg/L	<										
	Endrin Aldehyde	µg/L	<										
	Heptachlor	µg/L	<										
	Heptachlor Epoxide	µg/L	<										
	PCB-1016	mg/L	<										
	PCB-1221	mg/L	<										
	PCB-1232	mg/L	<										
	PCB-1242	mg/L	<										
	PCB-1248	mg/L	<										
	PCB-1254	mg/L	<										
	PCB-1260	mg/L	<										
	PCBs, Total	µg/L	<										
	Toxaphene	µg/L	<										
	2,3,7,8-TCDD	ng/L	<										
Group 7	Gross Alpha	pCi/L											
	Total Beta	pCi/L	<										
	Radium 226/228	pCi/L	<										
	Total Strontium	µg/L	<										
	Total Uranium	µg/L	<										
	Osmotic Pressure	mOs/kg											

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Toxics Management Spreadsheet
Version 1.4, May 2023

Stream / Surface Water Information

Sprague Energy Bridge Street Blk Plant, NPDES Permit No. PA0254151, Outfall 002

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Catfish Creek**

No. Reaches to Model: **1**

- (•) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi^2)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	037132	0.42	1018	5			Yes
End of Reach 1	037132	0.1	1003	5			Yes

$Q_{7\text{-}10}$

Location	RMI	LFY (cfs/mi^2)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	0.42	0.1	0									100	7		
End of Reach 1	0.1	0.1	0												

Q_h

Location	RMI	LFY (cfs/mi^2)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	0.42														
End of Reach 1	0.1														

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Toxics Management Spreadsheet
Version 1.4, May 2023

Model Results

Sprague Energy Bridge Street Blk Plant, NPDES Permit No. PA0254151, Outfall 002

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | ◉ All ○ Inputs ○ Results ○ Limits

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 2.191 PMF: 1 Analysis Hardness (mg/l): 100 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Benzene	0	0		0	640	640	54,422	
Ethylbenzene	0	0		0	2,900	2,900	246,597	
Tetrachloroethylene	0	0		0	700	700	59,524	
Toluene	0	0		0	1,700	1,700	144,557	
Trichloroethylene	0	0		0	2,300	2,300	195,577	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
Benzo(a)Anthracene	0	0		0	0.5	0.5	42.5	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	N/A	N/A	N/A	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Naphthalene	0	0		0	140	140	11,905	
Phenanthrene	0	0		0	5	5.0	425	
Pyrene	0	0		0	N/A	N/A	N/A	

☑ ***CFC*** CCT (min): 2.191 PMF: 1 Analysis Hardness (mg/l): 100 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Benzene	0	0		0	130	130	11,054	
Ethylbenzene	0	0		0	580	580	49,319	
Tetrachloroethylene	0	0		0	140	140	11,905	
Toluene	0	0		0	330	330	28,061	
Trichloroethylene	0	0		0	450	450	38,265	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
Benzo(a)Anthracene	0	0		0	0.1	0.1	8.5	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	N/A	N/A	N/A	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Naphthalene	0	0		0	43	43.0	3,656	
Phenanthrene	0	0		0	1	1.0	85.0	
Pyrene	0	0		0	N/A	N/A	N/A	

☑ ***THH*** CCT (min): 2.191 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Dissolved Iron	0	0		0	300	300	25,510	
Benzene	0	0		0	N/A	N/A	N/A	
Ethylbenzene	0	0		0	68	68.0	5,782	
Tetrachloroethylene	0	0		0	N/A	N/A	N/A	
Toluene	0	0		0	57	57.0	4,847	
Trichloroethylene	0	0		0	N/A	N/A	N/A	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
Benzo(a)Anthracene	0	0		0	N/A	N/A	N/A	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	N/A	N/A	N/A	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Naphthalene	0	0		0	N/A	N/A	N/A	
Phenanthrene	0	0		0	N/A	N/A	N/A	
Pyrene	0	0		0	20	20.0	1,701	

CRL CCT (min): 0.469 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Benzene	0	0		0	0.58	0.58	526	
Ethylbenzene	0	0		0	N/A	N/A	N/A	
Tetrachloroethylene	0	0		0	10	10.0	9,072	
Toluene	0	0		0	N/A	N/A	N/A	
Trichloroethylene	0	0		0	0.6	0.6	544	
Vinyl Chloride	0	0		0	0.02	0.02	18.1	
Benzo(a)Anthracene	0	0		0	0.001	0.001	0.91	
Benzo(a)Pyrene	0	0		0	0.0001	0.0001	0.091	
Benzo(k)Fluoranthene	0	0		0	0.01	0.01	9.07	
Chrysene	0	0		0	0.12	0.12	109	
Indeno(1,2,3-cd)Pyrene	0	0		0	0.001	0.001	0.91	
Naphthalene	0	0		0	N/A	N/A	N/A	
Phenanthrene	0	0		0	N/A	N/A	N/A	
Pyrene	0	0		0	N/A	N/A	N/A	

Recommended WQBELs & Monitoring Requirements

No. Samples/Month: 4

	Mass Limits		*Concentration Limits*						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
Dissolved Iron	0.085	0.13	25.5	39.8	63.8	mg/L	25.5	THH	Discharge Conc ≥ 50% WQBEL (RP)

Other Pollutants without Limits or Monitoring

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Benzene	0.53	mg/L	Discharge Conc ≤ 25% WQBEL
Ethylbenzene	5.78	mg/L	Discharge Conc ≤ 25% WQBEL
Tetrachloroethylene	9.07	mg/L	Discharge Conc ≤ 25% WQBEL
Toluene	4.85	mg/L	Discharge Conc ≤ 25% WQBEL
Trichloroethylene	0.54	mg/L	Discharge Conc ≤ 25% WQBEL
Vinyl Chloride	0.018	mg/L	Discharge Conc ≤ 25% WQBEL
Benzo(a)Anthracene	N/A	N/A	Discharge Conc < TQL
Benzo(a)Pyrene	N/A	N/A	Discharge Conc < TQL
Benzo(ghi)Perylene	N/A	N/A	No WQS
Benzo(k)Fluoranthene	0.009	mg/L	Discharge Conc < TQL
Chrysene	0.11	mg/L	Discharge Conc < TQL
Indeno(1,2,3-cd)Pyrene	0.0009	mg/L	Discharge Conc < TQL
Naphthalene	3.66	mg/L	Discharge Conc ≤ 25% WQBEL
Phenanthrene	0.085	mg/L	Discharge Conc < TQL
Pyrene	1.7	mg/L	Discharge Conc < TQL