

Application Type Renewal  
Facility Type Storm Water  
Major / Minor Minor

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

Application No. PAS206111  
APS ID 850791  
Authorization ID 1206112

**Applicant and Facility Information**



Applicant Name	<u>JWF Ind Inc.</u>	Facility Name	<u>JWF Industries/Environmental Tank &amp; Container</u>
Applicant Address	<u>84 Iron Street</u> <u>Johnstown, PA 15906-2618</u>	Facility Address	<u>163 Cramer Pike</u> <u>Johnstown, PA 15906-1157</u>
Applicant Contact	<u>William Mardis</u>	Facility Contact	<u>Juston Dubnansky</u>
Applicant Phone	<u>(814) 539-6922</u>	Facility Phone	<u>(814) 539-6922</u>
Client ID	<u>148156</u>	Site ID	<u>716683</u>
SIC Code	<u>3443</u>	Municipality	<u>West Taylor Township</u>
SIC Description	<u>Fabricated Plate Work (Boiler Shops)</u>	County	<u>Cambria</u>
Date Application Received	<u>September 29, 2017</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u></u>	If No, Reason	<u></u>
Purpose of Application	<u>Renewal of stormwater discharge permit.</u>		

**Summary of Review**

The Department received a renewal NPDES application from United Industrial (UI) via their contractor, Johnstown Environmental Management Corporation (JEMCOR) for this greater Johnstown area plant on September 29, 2017 after they received Department permission for a delayed renewal application submittal. UI had owned this steel forging and fabrication plant, but this plant was also previously part of a much larger complex of facilities. This facility was likely owned by the Midvale Steel & Ordinance Company (circa 1916 – 1923) and part was formerly known as the “Shell Plant”, as in artillery shells, but the facility was also later known as “#5 Shop.” This facility was acquired by the Bethlehem Steel Company (circa 1923 and then owned through the early 1990’s) which later became Bethlehem Steel Corp. (BSC). BSC’s many Johnstown area facilities were effectively sold off, in portions, over an extended period of time from the early 1990’s until the company’s eventual bankruptcy in 2001, after which the company was dissolved in 2003.

The portion of the prior BSC sites under the control of UI in early 2011 had been previously purchased from BSC by a group of its own management team, forming a new company, circa 1991, then called Johnstown America Industries, Inc. After this sale, the focus of this site and several other of the former BSC locations was primarily on the processes of making railcar axles and the fabrication and assembly of railcars and/or trucks. UI purchased this site from a successor company, FreightCar America Corporation (a.k.a. Johnstown America Corporation) in August 2006.

UI originally applied for their NPDES permit for this facility on March 11, 2011, and the Department eventually issued this permit (**PAS206111**) as a split off of two (2) outfalls (**701** and **702**) from a prior BSC NPDES permit (**PA0205672**) in a letter, dated January 15, 2013. In 2014 a transfer was processed by the Department’s central office transferring this permit to JWF Industries, Inc. (JWF) with the facility name being Environmental Tank and Container (ETC). However, the NPDES permit renewal was submitted by UI via JEMCOR in 2017 for their first renewal. Never-the-less, the site was already being used by JWF, doing business as (dba) ETC at that time. In the absence of Department action on this renewal, the original permit

Approve	Deny	Signatures	Date
X		 John L Duryea, Jr., P.E. / Environmental Engineer	March 25, 2024
X		 Michael E. Fifth, P.E. / Environmental Engineer Manager	March 26, 2024

### Summary of Review

continues to be considered administratively extended under JWF dba ETC. Among the original permit package, the Fact Sheet documents:

In the Johnstown America Corporation permit, Outfall 701 discharged uncontaminated storm water and groundwater. Outfall 702 discharged non-contact cooling water. United Industrial is proposing to discharge only uncontaminated storm water from both outfalls. Both outfalls discharge to Laurel Run, a high-quality stream. However, since the outfalls are existing and the new permittee is not proposing new, additional, or increased discharges to the high-quality watershed, the discharges are not subject to the requirements of 25 PA Code Chapter 93.4, (anti-degradation requirements).

However, in fact JWF had been fabricating water tanks, among other products, and occasionally have also discharged hydrostatic testing water via these outfalls. After exploring the need for future such discharges, on March 22, 2024, JWF disclosed in an email that they discovered a drain line to the POTW that will be suitable for this use in the future.

As noted, both outfalls drain to the receiving surface water, Laurel Run (45023), specifically to an unimpaired segment, designated in 25 PA Code Chapter 93 as a High Quality, cold water fishery (HQ-CWF). Laurel Run was designated as a conservation area in 1973. Although not included in the proposed rulemaking, this stream was later added to the final-form rulemaking which was finalized via publication in the Pennsylvania Bulletin on April 28, 1973 (3Pa.B 764). The receiving stream segment for Outfalls 701 and 702 extends to Laurel Run's mouth, draining into the nearby Conemaugh River.

The immediate downstream receiving water of the Conemaugh River is part of the Kiskiminetas-Conemaugh River (KCR) Watershed and is covered by a final Total Maximum Daily Limit (TMDL) for AMD associated metals. This TMDL was prepared for the U.S. Environmental Protection Agency (EPA) and was finalized on January 29, 2010. Therefore, JWF's ECT facility is subject to this TMDL. As the transferee of BSC's permitted outfalls for this facility, it has a portion of an assigned waste load allocation (WLA) under NPDES permit PA0205672 in this TMDL.

It may also be important to note here that former BSC related NPDES permits included many outfalls. Under permit PA0205672, most of the 16 outfalls were assigned to or shared with another purchaser, Mosier Industrial Services Corporation (Mosier). Consequently, the current two JWF outfalls were both shared with Mosier. For Outfall 701 besides sharing coverage with a permitted discharge by Mosier under PA0205672; it is also shared with Tecumseh Redevelopment, Incorporated (Tecumseh) whose discharge is permitted under yet another former BSC NPDES permit PA0002992 and designated as "Fabrication Shop DP #701." Outfall 702 is also shared with Mosier under their transferred permit PA0205672.

Also of note is that Ohio-based Mosier is today inactive in the greater Johnstown area, or at least at this site. Its NPDES permit, PA0205672, originally issued in 1995, was documented as ceased discharging and terminated July 1, 2016. In contrast, Tecumseh was, at the time of the BSC bankruptcy, a subsidiary of the International Steel Group and is still active in the Johnstown area, now a subsidiary of Luxembourg-based ArcelorMittal, and its North American subsidiaries. Tecumseh has recently entered into reclamation agreements with the State of New York and EPA for other former BSC locations. Its local NPDES permit, PA0002992, issued in 1987, was renewed in 2001 and a subsequent renewal has been pending since 2005. However, in Tecumseh's most recent renewal application, Outfalls 701 and 702 were not listed as in active use.

JWF's fabrication at their ETC location often involves using steel plates as raw material (among others), cutting and welding these into industrial tanks and other products onsite. The 2017 renewal application documented a Standard Industrial Classification (SIC) code of 3443 which corresponds with the description, "Fabricated Plate Work (Boiler Shops)".

Almost all activities at the ETC site are performed inside their extensive under roof facilities; however, some raw and finished materials are stored outside. JWF controls two parcels on either side of PA Route 403, including 25.75 acres east of Route 403 (which includes the extensive warehouse and fabrication facilities) and 9.11 acres west of Route 403, mostly along the right descending bank of the Conemaugh River. JWF uses only a small portion of this acreage for their production, parking areas, etc. Most of the remaining areas are undeveloped and vegetated and/or forested. These areas discharge to Laurel Run and/or the Conemaugh River via sheet flow or at locations not covered under this permit.

In addition, a substantial portion of the surrounding hillsides and communities drain to the onsite drainage infrastructure of the JWF site, especially along its northeastern property line, just outside the facility's buildings.

A drawing of the facility and drainage is show below as Figure 1:

Summary of Review

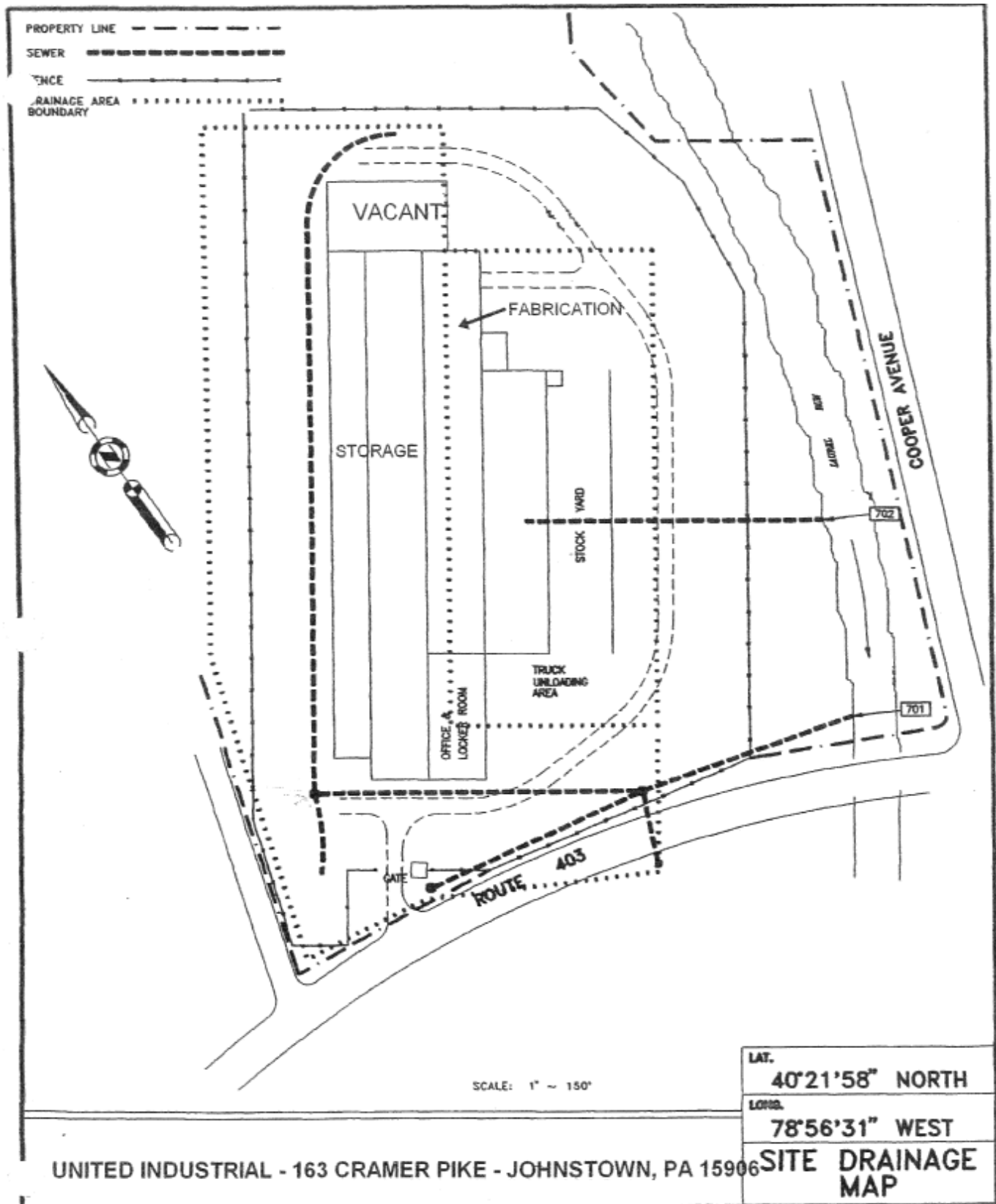
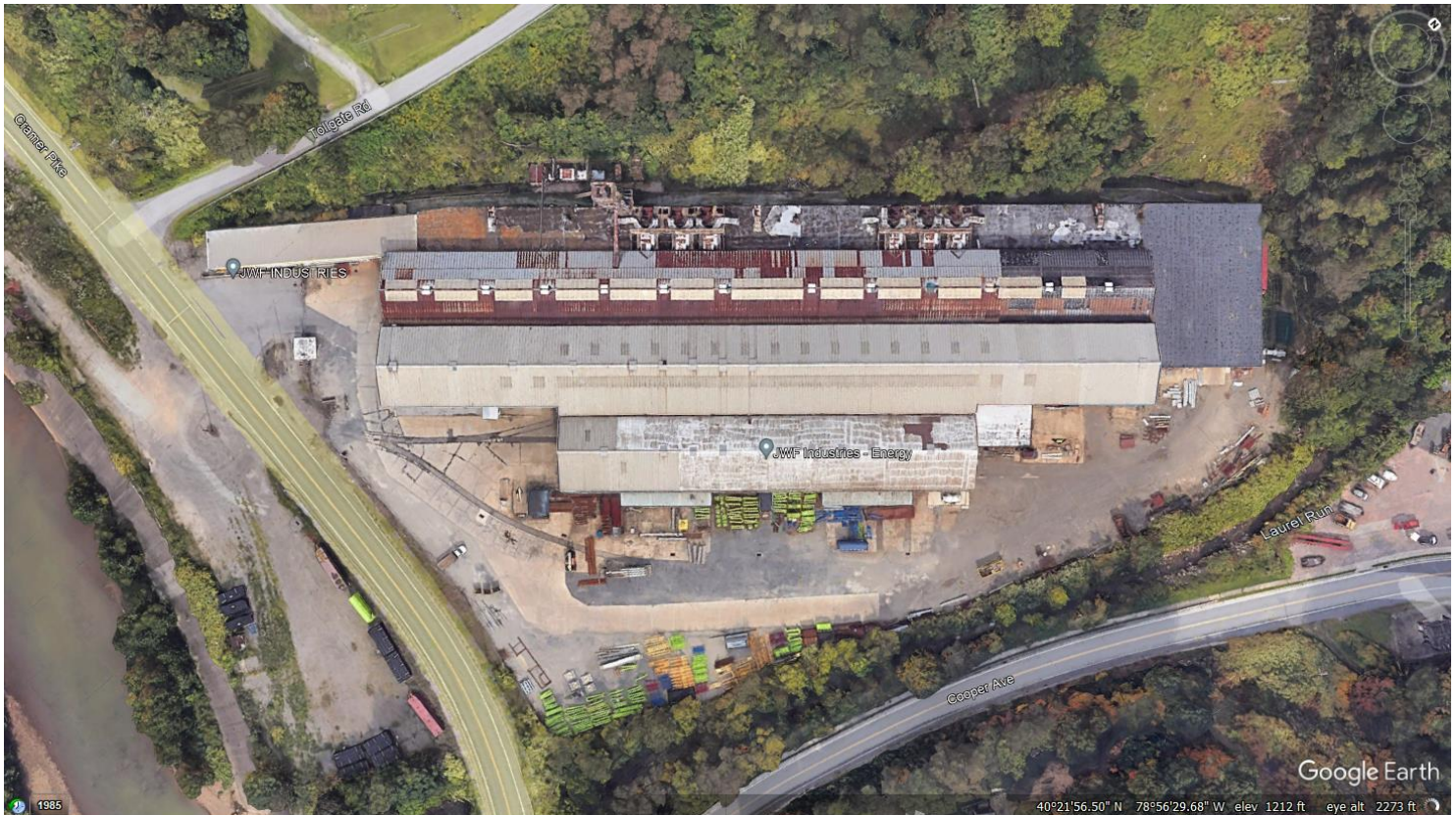


Figure 1: UI Site Drainage Map Showing Outfalls 701 and 702

### Summary of Review

Upon inspection of Figure 1 above, the two outfalls and their respective drainage areas are shown. Outfall 701 discharges collected stormwater runoff both from the site and from the hillside areas and communities located toward the north and west of the ETC site, but also from a catch basin located across Pa. Route 403 to the south; as well as, approximately 320,000 square feet of roofs and parking areas toward the southern part of the ETC site. Outfall 702 is more focused on the production areas of the site, including catch basins and approximately 146,00 square feet of roof drainage, truck unloading and outdoor storage and stock areas including both finished and unprocessed metal materials. A satellite image of this site (turned approximately 90 degrees clockwise from Figure 1) is shown in Figure 2 below:



**Figure 2: Satellite Image of JWF's ETC Site North of the Conemaugh River**

Clearly visible in Figure 2 above is Cramer Pike (Pa. Route 403) and Cooper Avenue; as well as, Laurel Run and the Conemaugh River. Also visible are the industrialized portions of JWF's acreage. Apart from these portions, stormwater enters the two receiving waters via sheet flow.

The permittee has complied with Act 14 notifications.

It is recommended to publish a draft of this NPDES renewal permit for public comment.

#### 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.	<u>701</u>	Design Flow (MGD)	<u>0</u>
Latitude	<u>40° 21' 56.04"</u>	Longitude	<u>-78° 56' 26.28"</u>
Quad Name	<u>1614</u>	Quad Code	<u>Johnstown</u>
Wastewater Description: <u>Stormwater</u>			
Receiving Waters	<u>Laurel Run (HQ-CWF)</u>	Stream Code	<u>45023</u>
NHD Com ID	<u>123720176</u>	RMI	<u>0.09 miles</u>
Drainage Area	<u>14 square miles</u>	Yield (cfs/mi <sup>2</sup> )	<u>0.0943</u>
Q <sub>7-10</sub> Flow (cfs)	<u>1.32</u>	Q <sub>7-10</sub> Basis	<u>USGS StreamStats</u>
Elevation (ft)	<u>1150</u>	Slope (ft/ft)	<u></u>
Watershed No.	<u>18-D</u>	Chapter 93 Class.	<u>HQ-CWF</u>
Existing Use	<u><b>Aquatic Life</b></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u></u>	Exceptions to Criteria	<u></u>
Assessment Status	<u>Attaining Use(s) Aquatic Life</u>		
Cause(s) of Impairment	<u><b>N/A</b></u>		
Source(s) of Impairment	<u><b>N/A</b></u>		
TMDL Status	<u>Final</u>	Name	<u>Kiskiminetas-Conemaugh River Watersheds TMDL</u>
Nearest Downstream Public Water Supply Intake	<u>Buffalo Township Municipal Authority</u>		
PWS Waters	<u>Allegheny River</u>	Flow at Intake (cfs)	<u>2553</u>
PWS RMI	<u>29.4</u>	Distance from Outfall (mi)	<u>77.40</u>

Changes Since Last Permit Issuance: None

Other Comments: The culvert that runs along the northwest perimeter of the active site feeds Outfall 701 and is shown in Figure 3 below.



Figure 3: Drainage Culvert Running Along the Northwestern Perimeter of JWF's ETC Facility

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>702</u>	Design Flow (MGD)	<u>0</u>
Latitude	<u>40° 21' 55.54"</u>	Longitude	<u>-78° 56' 26.48"</u>
Quad Name	<u>1614</u>	Quad Code	<u>Johnstown</u>
Wastewater Description: <u>Stormwater</u>			
Receiving Waters	<u>Laurel Run (HQ-CWF)</u>	Stream Code	<u>45023</u>
NHD Com ID	<u>123720176</u>	RMI	<u>0.12 miles</u>
Drainage Area	<u>14 square miles</u>	Yield (cfs/mi <sup>2</sup> )	<u>0.943</u>
Q <sub>7-10</sub> Flow (cfs)	<u>1.32</u>	Q <sub>7-10</sub> Basis	<u>USGS StreamStats</u>
Elevation (ft)	<u>1163</u>	Slope (ft/ft)	<u></u>
Watershed No.	<u>18-D</u>	Chapter 93 Class.	<u>HQ-CWF</u>
Existing Use	<u>Aquatic Life</u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u></u>	Exceptions to Criteria	<u></u>
Assessment Status	<u>Attaining Use(s) Aquatic Life</u>		
Cause(s) of Impairment	<u>N/A</u>		
Source(s) of Impairment	<u>N/A</u>		
TMDL Status	<u>Final</u>	Name	<u>Kiskiminetas-Conemaugh River Watersheds TMDL</u>
Nearest Downstream Public Water Supply Intake	<u>Buffalo Township Municipal Authority</u>		
PWS Waters	<u>Allegheny River</u>	Flow at Intake (cfs)	<u>2553</u>
PWS RMI	<u>29.4</u>	Distance from Outfall (mi)	<u>77.43</u>

Changes Since Last Permit Issuance: None

Other Comments: The Outfalls from JWF's ETC facility are shown in Figure 4 below.



Figure 4: Photographs from Near Cooper Avenue of JWF ETC Facility Outfalls 701 and 702 into Laurel Run

A year of recent data from the JWF, ETC facility outfalls is shown in Tables 1 and 2 below. Permit effluent limit exceedances are shown in **red bold** and TMDL endpoint exceedances are shown in **bold**.

Compliance History

Table 1: DMR Data for Outfall 701 (from October 1, 2022 to September 30, 2023)

Parameter	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22
Flow (MGD) Daily Average	0.03	0.05	0.04	0.03	0.04	0.02	0.02	0.04	0.05	0.02	0.07	0.04
pH (S.U.) Minimum	8.0	7.8	7.6	7.9	7.8	7.7	7.8	8.1	7.9	7.7	7.8	7.4
pH (S.U.) Maximum	8.2	8.1	7.6	8.0	8.2	8.1	8.0	8.2	8.1	8.0	8.1	7.5
TSS (mg/L) Average Monthly	5.0	2.0	1.0	4.0	1.0	2.0	3.0	2.0	2.0	1.0	87	7.0
TSS (mg/L) Daily Maximum	6.0	3.0	1.0	4.0	1.0	2.0	4.0	2.0	2.0	1.0	172	8.0
Total Aluminum (mg/L) Average Monthly	0.08	0.05	0.05	0.05	0.08	0.25	0.20	0.15	0.18	0.05	8.53	0.05
Total Aluminum (mg/L) Daily Maximum	0.10	0.05	0.05	0.05	0.10	0.30	0.20	0.20	0.30	0.05	17.00	0.05
Total Iron (mg/L) Average Monthly	0.35	0.14	0.16	0.47	0.36	0.47	0.46	0.60	0.54	0.40	6.24	0.53
Total Iron (mg/L) Daily Maximum	0.48	0.14	0.19	0.72	0.36	0.47	0.47	0.74	0.74	0.60	12.00	0.94
Total Manganese (mg/L) Average Monthly	0.14	0.03	0.05	0.07	0.06	0.09	0.05	0.07	0.04	0.06	4.23	0.13
Total Manganese (mg/L) Daily Maximum	0.23	0.03	0.05	0.08	0.07	0.11	0.05	0.07	0.05	0.07	8.35	0.13

Table 2: DMR Data for Outfall 702 (from October 1, 2022 to September 30, 2023)

Parameter	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22
Flow (MGD) Daily Average	0.004	0.02	0.004	0.004	0.005	0.002	0.001	0.01	0.01	0.001	0.006	0.002
pH (S.U.) Minimum	8.0	7.4	6.7	7.7	7.5	7.9	7.5	7.6	8.0	7.6	7.8	7.5
pH (S.U.) Maximum	8.2	8.1	7.4	7.9	7.8	8.0	7.6	7.7	8.1	7.7	8.1	7.5
TSS (mg/L) Average Monthly	4.0	2.0	1.0	8.5	1.0	3.5	1.5	1.0	2.0	1.0	56	2.5
TSS (mg/L) Daily Maximum	5.0	3.0	1.0	10.0	1.0	6.0	2.0	1.0	3.0	1.0	111	4.0
Total Aluminum (mg/L) Average Monthly	0.08	0.05	0.05	0.05	0.05	0.1	0.10	0.05	0.28	0.05	0.18	0.05
Total Aluminum (mg/L) Daily Maximum	0.10	0.05	0.05	0.05	0.05	0.1	0.10	0.05	0.50	0.05	0.30	0.05
Total Iron (mg/L) Average Monthly	0.42	0.35	0.18	0.87	1.13	1.31	0.21	1.77	0.78	0.09	0.47	0.39
Total Iron (mg/L) Daily Maximum	0.48	0.58	0.22	1.52	2.09	2.01	0.21	2.95	1.13	0.09	0.78	0.66
Total Manganese (mg/L) Average Monthly	0.14	0.04	0.03	0.04	0.02	0.04	0.06	0.03	0.06	0.05	0.21	0.09
Total Manganese (mg/L) Daily Maximum	0.23	0.04	0.04	0.05	0.02	0.04	0.06	0.03	0.06	0.06	0.38	0.12



**Compliance History**

As can be seen in Tables 1 and 2 above, for both of the JWF, ETC facility outfalls the data has documented exceedances for high Total Suspended Solids (TSS). These exceedances were cited as violations in a Department letter to JWF, dated November 29, 2023.

**Table 3: Effluent Violations for Outfall 701, from: November 1, 2022 To: September 30, 2023**

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	11/30/22	Avg Mo	87	mg/L	30	mg/L
TSS	11/30/22	Daily Max	172	mg/L	60	mg/L

**Table 4: Effluent Violations for Outfall 702, from: November 1, 2022 To: September 30, 2023**

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	11/30/22	Avg Mo	56	mg/L	30	mg/L
TSS	11/30/22	Daily Max	111	mg/L	60	mg/L

<b>Compliance History</b>	
<b>Summary of DMRs:</b>	<p>The Department has received and retained electronic DMR records since January 2017. Over that period there have been occasional exceedances of effluent limits for TSS and also some records of monitoring that would have exceeded TMDL values, had these been promulgated as limits in this permit.</p>
<b>Summary of Inspections:</b>	<p>Since the original permit issuance in early 2013, there have been six onsite inspections. Of these, a violation was noted in three. The first, on August 18, 2014 cited a failure to submit complete monitoring reports which was quickly corrected. The last documented Notice of Violation was issued November 29, 2023 because of effluent limitation exceedances for excursions of high TSS. A review of eDMR data reveals that such an excursion of TSS along with low pH occurred in May 2017. Later excursions of high TSS reoccurred in March 2019, May 2020, September 2021 and finally in November 2022 (see Tables 1 – 4 above).</p> <p>Changes to onsite BMPs were discussed to address these excursions with JWF personnel on November 15, 2023. Site personnel seemed confident that these changes were mitigate against reoccurrence of the TSS excursions.</p> <p>The Department’s SWRO Operations supervisor reviewed the compliance status of this permit. On December 4, 2023, this supervisor supplied a report which confirmed that all outstanding violations and enforcement actions were resolved. Given this, the renewal can now be finalized and issued.</p>

**Development of Effluent Limitations**

<b>Outfall No.</b> <u>701 and 702</u>	<b>Design Flow (MGD)</b> <u>0</u>
<b>Latitude</b> <u>40° 21' 58", 40° 21' 57"</u>	<b>Longitude</b> <u>-78° 56' 31", -78° 56' 30"</u>
<b>Wastewater Description:</b> <u>Stormwater</u>	

**Technology-Based Limitations**

Stormwater Technology Limits

Outfall 701 and 702 will be subject to PAG-03 General Stormwater Permit conditions as a minimum requirement because the outfalls receive stormwater. The applicable SIC code for the site is 3443 and the corresponding appendix of the PAG-03 that would apply to the facility is Appendix U. The reporting requirements applicable to stormwater discharges are shown in Table 3 below. Along with the monitoring requirements, sector specific BMPs that are included in Appendix U of the PAG-03 will also be included in Part C of the Draft Permit.

**Table 3: PAG-03 Appendix (U) Monitoring Requirements**

Parameter	Max Daily Concentration	Measurement Frequency	Sample Type
pH	Monitor and Report	1/6 Months	Grab
Total Suspended Solids (TSS)	Monitor and Report	1/6 Months	Grab
Nitrate + Nitrite -Nitrogen	Monitor and Report	1/6 Months	Grab
Total Aluminum	Monitor and Report	1/6 Months	Grab
Total Iron	Monitor and Report	1/6 Months	Grab
Total Zinc	Monitor and Report	1/6 Months	Grab
Total Nitrogen <sup>(1)</sup>	Monitor and Report	1/6 Months	Calculation
Total Phosphorus	Monitor and Report	1/6 Months	Grab
Oil and Grease	Monitor and Report	1/6 Months	Grab

(1) Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO<sub>2</sub>+NO<sub>3</sub>-N), where TKN and NO<sub>2</sub>+NO<sub>3</sub>-N are measured in the same sample.

**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 701 and 702 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) require 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, since the JWF discharges predated the designation of Laurel Run as HQ (in 1973), these provisions are not applicable to this JWF facility.

**Total Maximum Daily Loads (TMDL)**

Wastewater discharges from the JWF, ETC site are located within the Kiskiminetas-Conemaugh Watershed which is subject to a TMDL developed by the U.S. Environmental Protection Agency (EPA) and their contractor TetraTech. The TMDL was finalized on January 29, 2010 and establishes waste load allocations for the discharge of metals, aluminum,

iron and manganese within this watershed. Section 303(d) of the Clean Water Act and U.S. EPA'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 Kiskiminetas-Conemaugh River Watersheds are included in the state's Section 303(d) list because of various impairments, including metals, aluminum, iron and manganese. The TMDL includes consideration for each river segment 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 allocated among each known point and non-point pollutant source in the form of a watershed allocation using a stream's assimilative capacity. TMDLs prescribe allocations that minimally achieve water quality criteria (i.e., 100 percent use of a stream's assimilative capacity).

**Aluminum:** The specific water quality criterion for aluminum is expressed as an acute risk with a maximum daily limit in 25 Pa. Code Chapter 93. Discharges of aluminum may only be authorized to the extent that they will not cause or contribute to any violation of the water quality standards. Therefore, the water quality criterion for aluminum (0.75 mg/L) is imposed as a maximum daily effluent limit (MDL). Whenever the most stringent criterion is selected for the MDL, the Department should also impose an average monthly limit (AML) and instantaneous maximum limit (IMAX) if applicable. The imposition of an AML that is more stringent than the MDL is typically not appropriate because the water quality concerns have already been fully addressed by setting the MDL equal to the most stringent applicable criterion. Therefore, where the MDL is set at the value of the most stringent applicable criterion, the AML should be set equal to the MDL. Accordingly, TMDL aluminum limits are proposed for this outfall.

**Iron:** The specific water quality criterion for iron is expressed as a 30-day average of 1.5 mg/L in 25 Pa. Code § 93.7(a). The criterion is based on the protection of aquatic life and is associated with chronic exposure. There are no other criteria for total iron. Since the duration of the total iron criterion coincides with the 30-day duration of the AML, the 30-day average criterion for total iron is set equal to the AML. In addition, because the total iron criterion is associated with chronic exposure, the MDL (representing acute exposure) and the IMAX may be made less stringent according to established procedures described in Section III.C.3.h on Page 13 of the Water Quality Toxics Management Strategy (Doc. # 361-0100-003). These procedures state that a MDL and IMAX may be set at 2 times and 2.5 times the AML, respectively, or there is the option to use multipliers from EPA's Technical Support Document for Water Quality-based Toxics Control, if data are available to support the use of alternative multipliers. Accordingly, TMDL iron limits are proposed for this outfall.

**Manganese:** The specific water quality criterion for manganese is expressed as an acute or maximum daily of 1.0 mg/L in 25 Pa. Code § 93.7(a). The criterion is based on the protection of human health and is associated with chronic exposure associated with a potable water supply (PWS). Since no duration is given in Chapter 93 for the manganese criterion, a duration of 30 days is used based on the water quality criteria duration for Threshold Human Health (THH) criteria given in Section III.C.3.a., Table 3 on Page 9 of DEP's Water Quality Toxics Management Strategy. The 30-day duration for THH criteria coincides with the 30-day duration of an AML, which is why the manganese criterion is set equal to the AML for a "permitting at criteria" scenario. Because the manganese criterion is interpreted as having chronic exposure, the manganese MDL and IMAX may be made less stringent according to procedures established in Section III.C.2.h. of the Water Quality Toxics Management Strategy (AML multipliers of 2.0 and 2.5 for the MDL and IMAX respectively). Accordingly, TMDL manganese limits are proposed for this outfall.

All new or revised NPDES permits discharging into the Kiskiminetas-Conemaugh River Watersheds have to be consistent with the TMDL Waste Load Allocation based on 40 CFR 122.44(d)(1)(vii)(B). The Department reviewed the TMDL and the predecessor permits for this facility were assigned a portion of an applicable prior WLA. Since no information on parsing of the WLA for these prior permits is available, the TMDL endpoints will be imposed. The concentration values may be used as Effluent Limitations in the JWF, ETC permit. Refer to Table 5 below, for a summary of the TMDL effluent concentration limitations which will be applied for this facility. Note that in the recent history of discharges from the JWF, ETC facility documented exceedances of the TMDL effluent limitations have occurred. In November 2023, during onsite inspections, stormwater best management practices (BMPs) that should prevent such exceedances were discussed.

**Table 5: Summary of the TMDL Criteria and Applicable Effluent Limitations**

Parameter	Monthly Average (mg/L)	Daily Maximum (mg/L)
Aluminum	0.75	0.75
Iron	1.5	3.0
Manganese	1.0	2.0

**Anti-Backsliding**

Section 402(o) of the Clean Water Act (CWA), enacted in the Water Quality Act of 1987, establishes anti-backsliding rules governing two situations. The first situation occurs when a permittee seeks to revise a Technology-Based effluent limitation based on BPJ to reflect a subsequently promulgated effluent guideline which is less stringent. The second situation addressed by Section 402(o) arises when a permittee seeks relaxation of an effluent limitation which is based upon a State treatment standard or water quality standard.

Previous limits can be used pursuant to EPA’s anti-backsliding regulation 40 CFR 122.44 (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). (2) In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit. These prior effluent limits are shown in Table 6 below:

**Table 6: Current Outfalls 701 and 702 Effluent Limitations**

Parameter	Mass / Loading (lb/day)		Concentration / Quality (mg/L)			Units	
	Monthly Average	Daily Maximum	Instant Minimum	Monthly Average	Daily Maximum		Instant Max
Flow	Report	Report	---	---	---	---	MGD
pH	---	---	6.0	---	---	9.0	S.U.
Total Suspended Solids	---	---	---	30.0	60.0	---	mg/L
Total Aluminum	---	---	---	Report	Report	---	mg/L
Total Iron	---	---	---	Report	Report	---	mg/L
Total Manganese	---	---	---	Report	Report	---	mg/L

**Proposed Effluent Limitations and Monitoring Requirements**

Since sampling had previously been established at these outfalls to monitor the effectiveness of the site’s implemented BMPs, this same level of monitoring will be continued and at the same twice per month frequency. Note that the General Permit has recently added nitrogen and phosphorus to the monitored pollutants, so these will be added here as well. Given the history of this site, the requirements of the Kiskiminetas-Conemaugh River Watersheds TMDL and the associated pollutants are considered to have a reasonable potential of being discharged from this facility. The associated monitoring of these TMDL pollutants and the associated TMDL endpoints will be imposed as effluent limitations with monitoring at the same frequencies as previously imposed.

The proposed effluent monitoring requirements for Outfalls 701 and 702 are displayed in Table 7 below, these include the most stringent values from the above effluent limitation development. Since the monitoring has been twice per month, this frequency was maintained in the renewal.

**Table 7: Permit Effluent Limits and Monitoring Requirements for Outfalls 701 and 702**

Parameter	Mass (pounds)		Concentration (mg/L)			Monitoring Requirements
	Average Monthly	Daily Maximum	Average Monthly	Daily Maximum	Instant Maximum	
Flow (MGD)	Report	Report	—	—	—	Measured; 2/month
Nitrate+Nitrite -Nitrogen	—	—	Report	Report	—	Grab sample; 2/month
Total Suspended Solids	—	—	30.0	60.0	—	Grab sample; 2/month
Oil and Grease	—	—	Report	Report	—	Grab sample; 2/month
Total Aluminum	—	—	0.75	0.75	—	Grab sample; 2/month
Total Iron	—	—	1.5	3.0	—	Grab sample; 2/month
Total Manganese	—	—	1.0	2.0	—	Grab sample; 2/month
Total Zinc	—	—	Report	Report	—	Grab sample; 2/month
Total Nitrogen <sup>(1)</sup>	—	—	Report	Report	—	Calculation
Total Phosphorus	—	—	Report	Report	—	Grab sample; 2/month
pH (S.U.)	Within the range of 6.0 to 9.0					Grab sample; 2/month

(1) Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO<sub>2</sub>+NO<sub>3</sub>-N), where TKN and NO<sub>2</sub>+NO<sub>3</sub>-N are measured in the same sample.

**PFAS Monitoring**

Per- and poly-fluoroalkyl substances (PFAS) have attracted widespread attention recently because of their characteristic bioaccumulation, toxicity, and wide dispersion in the environment. PFAS are a group of compounds used in a variety of industrial and consumer products such as surfactants for soil/stain resistance, textiles, paper and metals, firefighting foam, and pesticides. Humans are exposed to PFAS through contaminated drinking water, food, outdoor air, indoor dust, and soil.

On February 5, 2024, the Department updated their standard procedures to include a requirement for monitoring of selected PFAS related compounds. These include:

- PFOA – perfluorooctanoic acid
- PFOS – perfluorooctanesulfonic acid
- PBFS – perfluorobutane sulfonate
- HFPO-DA – hexafluoropropylene oxide – dimer acid

For permittees like JWF and their ETC location where no history of use of these chemicals has been indicated, once per annum monitoring will be added to the required monitoring. No effluent limitations have been promulgated at this time. Further, if 4 consecutive samples result in no detections of these substances, further monitoring may be discontinued.

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