

Application Type Renewal  
Facility Type Industrial  
Major / Minor Minor

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

Application No. PA0103446  
APS ID 958003  
Authorization ID 1211644

**Applicant and Facility Information**

Applicant Name	<u>Advanced Disposal Services Greentree Landfill, LLC</u>	Facility Name	<u>Advanced Disposal Services Greentree Landfill</u>
Applicant Address	<u>635 Toby Road Kersey, PA 15846</u>	Facility Address	<u>635 Toby Road Kersey, PA 15846</u>
Applicant Contact	<u>Donald Henrichs</u>	Facility Contact	<u>Donald Henrichs</u>
Applicant Phone	<u>(814) 265-1744</u>	Facility Phone	<u>(814) 265-1744</u>
Client ID	<u>148625</u>	Site ID	<u>245233</u>
SIC Code	<u>4953</u>	Municipality	<u>Fox Township</u>
SIC Description	<u>Trans. &amp; Utilities - Refuse Systems</u>	County	<u>Elk County</u>
Date Application Received	<u>December 18, 2017</u>	EPA Waived?	<u>No</u>
Date Application Accepted	<u>December 28, 2017</u>	If No, Reason	<u>TMDL</u>
Purpose of Application	<u>Renewal of an existing NPDES Permit for a discharge of IW process Effluent with an ELG, and discharges of stormwater.</u>		

**Summary of Review**

Act 14 - Proof of Notification was submitted and received.

This facility is subject to the ELGs under 40 CFR 437.42 for Centralized Waste Treatment (CWT) facilities that receive waste from the metals (part A) and organics (part C) subcategories.

A Part II Water Quality Management permit is not required at this time.

The applicant should be able to continue to meet the limits of this permit, which will protect the uses of the receiving stream.

I. OTHER REQUIREMENTS:

- A. Right of Way
- B. Solids Handling
- C. NPDES Permit Supersedes WQM Permits
- D. Modification or Revocation for Changes to BAT or BCT
- E. Effluent Chlorine Optimization and Minimization

SPECIAL CONDITIONS:

- II. Chemical Additives
- III. Requirements Applicable to Stormwater Outfalls
- IV. Landfill Leachate Discharge
- V. Receipt of Residual Waste
- VI. Equivalent Treatment Determination
- VII. Future Acceptance of Natural Gas-Related Wastewaters

There is 1 open violation in effects associated with the subject Client ID (148625) as of 10/6/2020 (see Attachment 11)

Approve	Deny	Signatures	Date
X		Stephen A. McCauley Stephen A. McCauley, E.I.T. / Environmental Engineering Specialist	10/6/2020
X		Justin C. Dickey Justin C. Dickey, P.E. / Environmental Engineer Manager	October 20, 2020

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.25</u>
Latitude	<u>41° 17' 57.50"</u>	Longitude	<u>-78° 39' 57.08"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Effluent</u>			
Receiving Waters	<u>Little Toby Creek (CWF)</u>	Stream Code	<u>50229</u>
NHD Com ID	<u>102667527</u>	RMI	<u>23.0</u>
Drainage Area	<u>13.8</u>	Yield (cfs/mi <sup>2</sup> )	<u>0.102</u>
Q <sub>7-10</sub> Flow (cfs)	<u>1.40</u>	Q <sub>7-10</sub> Basis	<u>Calculated (see page 3)</u>
Elevation (ft)	<u>1556</u>	Slope (ft/ft)	<u>0.005</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>Metals, pH, and Total Suspended Solids (TSS)</u>		
Source(s) of Impairment	<u>Acid Mine Drainage (AMD)</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>
Background/Ambient Data		Data Source	
pH (SU)	<u>-</u>		<u>-</u>
Temperature (°F)	<u>-</u>		<u>-</u>
Hardness (mg/L)	<u>-</u>		<u>-</u>
Other:	<u>-</u>		<u>-</u>
Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

\* - This discharge is not expected to discharge pH and Total Suspended Solids (TSS) above the levels required in the TMDL. WLAs were set for Metals (Aluminum, Iron, and Manganese) in the previous NPDES Permit and will be retained with this renewal. The previous WLAs were re-evaluated during this renewal. It was found that the WLAs cannot be increased due to there being no assimilative capacity in the Little Toby Creek. A letter (see Attachment 10) was sent by the DEP on October 17, 2019 to explain the WLA decision.

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.

Narrative: This Fact Sheet details the determination of draft NPDES permit limits for an existing discharge of 0.25 MGD of treated Industrial Waste from an existing landfill discharge in Fox Township, Elk County.

Facility Area: See the topographical map (Attachment 1) and the aerial map (Attachment 2)

**1. Streamflow**

The Q<sub>7-10</sub> low flow was determined by calculating the yield rate of the Clarion River at the nearest downstream gage station:

West Branch Clarion River at Wilcox, PA: (USGS Gage no. 03029500)	Q <sub>7-10</sub> : <u>6.41</u> cfs	USGS Streamstats
	Drainage Area: <u>63</u> sq. mi.	USGS Streamstats
	Yield Rate: <u>0.102</u> cfsm	(calculated)

The Q<sub>7-10</sub> low flow for the receiving stream at Outfall 001 was determined by using the calculated yieldrate above and the Drainage Area.

Yieldrate: <u>0.102</u> cfsm	from above
Drainage Area: <u>13.8</u> sq. mi.	USGS Streamstats
% of stream allocated: <u>100%</u>	Basis: No nearby discharges
Q <sub>7-10</sub> : <u>1.40</u> cfs	calculated

The receiving stream flow is supplemented by Abandoned Mine flows from deep mines in the area

Little Toby deep mine discharge: <u>0.7</u> cfs	(average flow)
Kyler deep mine discharge: <u>2.67</u> cfs	(average flow)

The adjusted Q<sub>7-10</sub> flow for the Little Toby Creek at Outfall 001 is therefore: 1.4 + 0.7 + 2.67 = 4.77 cfs

The end of the modeling reach (first point of aquatic life use) is the confluence of the Little Toby Creek and the Brandy Camp Creek

Previous modeling has recognized that Little Toby Creek has been impacted by AMD in the watershed. Several passive treatment systems have been installed, on tributaries to Little Toby Creek, to address abandoned mine drainage problems. However, a September 2018 Aquatic Survey of the main stem still shows the stream is impaired, upstream of the confluence with Brandy Camp Creek, and is not worthy of aquatic life protection.

Brandy Camp Creek:	Yieldrate: <u>0.102</u> cfsm	from above
	Drainage Area: <u>13.28</u> sq. mi.	USGS Streamstats
	Q <sub>7-10</sub> : <u>1.35</u> cfs	(calculated)

The Brandy Camp Creek flow is also supplemented by Abandoned Mine flows from a deep mine in the area

Brandy Camp deep mine discharge: 2.54 cfs (average flow)

The adjusted Q<sub>7-10</sub> flow for the Brandy Camp Creek is therefore: 3.89 cfs

The total Q<sub>7-10</sub> flow used for the Brandy Camp Creek is therefore: 2.54 + 3.89 = 8.66 cfs.

**2. Wasteflow: Outfall 001**

Permitted discharge flow: <u>0.250</u> MGD = <u>0.387</u> cfs	
Average discharge flow: <u>0.114</u> MGD = <u>0.176</u> cfs	(For IW discharges, the flow to use in modeling is the average flow during production or operation)

Runoff flow period: 24 hours Basis Runoff flow for a landfill with flow equalization

Flow will be required to be monitored as authorized under Chapter 92a.61, and as recommended in the SOP.

The calculated stream flow is greater than 3 parts to the discharge flow. In accordance with the SOP, since this is an existing discharge, and there is more than 3 parts stream flow (Q7-10) to 1 part effluent (design flow), no treatment requirements will be required from document number 391-2000-014, titled, "Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers", dated April 12, 2008.

**3. Parameters:**

The following parameters were evaluated: pH, Total Suspended Solids, Fecal Coliform, Phosphorus, NH<sub>3</sub>-N, CBOD<sub>5</sub>, Dissolved Oxygen, and Total Residual Chlorine. NH<sub>3</sub>-N, CBOD<sub>5</sub>, and Dissolved Oxygen were evaluated using WQM 7.0 at the discharge point.

a. pH

Between 6.0 and 10.0 at all times

Basis: Application of technology-based limits set in 40 CFR 437.42 for Centralized Waste Treatment (CWT) facilities that receive waste from the metals (part A) and organics (part C) subcategories. Under Chapter 95.2, the pH limits may be outside of the standard range of 6 to 9 if the discharge is to a stream affected by abandoned mine drainage (AMD). Since the Little Toby Creek is affected by AMD, and at the request of the Permittee in 2011, the upper limit for pH was increased from 9 to 10. The previous limits will be retained.

b. Total Suspended Solids

Limits are 31.0 mg/l as a monthly average and 60.0 mg/l as a daily maximum.

Basis: Application of technology-based limits set in 40 CFR 437.42 for Centralized Waste Treatment (CWT) facilities that receive waste from the metals (part A) and organics (part C) subcategories. The TSS limits with this renewal are slightly less restrictive due to the use of the correct ELG.

c. Fecal Coliform

05/01 - 09/30: 200/100ml (monthly average geometric mean)  
1,000/100ml (instantaneous maximum)

10/01 - 04/30: 2,000/100ml (monthly average geometric mean)  
10,000/100ml (instantaneous maximum)

Basis: Application of Chapter 92a47 technology-based limits

d. Phosphorus

- Limit necessary due to:
  - Discharge to lake, pond, or impoundment
  - Discharge to stream
- Limit not necessary

Basis: Chapter 96.5 does not apply.

e. NO<sub>2</sub>-NO<sub>3</sub>, Fluoride, Phenolics, Sulfates, Chlorides, and TDS

Nearest Downstream potable water supply (PWS): Pennsylvania American Water Company - Clarion

Distance downstream from the point of discharge: 23.0 miles (approximate)

No limits necessary

Limits needed

Basis: Significant dilution available (see below).

PWS Evaluation:

Stream flow (sf) at the potable water supply intake = 90.7 cfs

Waste flow (wf) from the landfill = 0.114 MGD = 0.176 cfs

Total Flow (tot. flow) = sf + wf = 90.876 cfs

Background Concentrations:

NO<sub>2</sub>-NO<sub>3</sub> = no data

Sulfates = no data

Fluoride = no data

Chlorides = no data

Phenolics = no data

TDS = no data

Mass balance for Nitrate-Nitrite (NO<sub>2</sub>-NO<sub>3</sub>) at the potable water supply intake:

$$\begin{aligned} (\text{sf @ PWS})(\text{bkrd. conc.}) + (\text{wf})(x) &= (\text{tot. flow})(\text{criteria}) \\ (90.7 \text{ cfs})(0 \text{ mg/l}) + (0.176 \text{ cfs})(x) &= (90.876 \text{ cfs})(10 \text{ mg/l}) \end{aligned}$$

$$x = 5,163 \text{ mg/l (renewal application maximum was 703 mg/l - ok)}$$

Mass balance for Fluoride at the potable water supply intake:

$$\begin{aligned} (\text{sf @ PWS})(\text{bkrd. conc.}) + (\text{wf})(x) &= (\text{tot. flow})(\text{criteria}) \\ (90.7 \text{ cfs})(0 \text{ mg/l}) + (0.176 \text{ cfs})(x) &= (90.876 \text{ cfs})(2 \text{ mg/l}) \end{aligned}$$

$$x = 1,032 \text{ mg/l (renewal application maximum was <2.5 mg/l - ok)}$$

Mass balance for Phenolics at the potable water supply intake:

$$\begin{aligned} (\text{sf @ PWS})(\text{bkrd. conc.}) + (\text{wf})(x) &= (\text{tot. flow})(\text{criteria}) \\ (90.7 \text{ cfs})(0 \text{ mg/l}) + (0.176 \text{ cfs})(x) &= (90.876 \text{ cfs})(0.005 \text{ mg/l}) \end{aligned}$$

$$x = 2.58 \text{ mg/l (renewal application maximum was 0.914 mg/l - ok)}$$

Mass balance for Sulfates at the potable water supply intake:

$$\begin{aligned} (\text{sf @ PWS})(\text{bkrd. conc.}) + (\text{wf})(x) &= (\text{tot. flow})(\text{criteria}) \\ (90.7 \text{ cfs})(0 \text{ mg/l}) + (0.176 \text{ cfs})(x) &= (90.876 \text{ cfs})(250 \text{ mg/l}) \end{aligned}$$

$$x = 129,085 \text{ mg/l (renewal application maximum was 3,150 mg/l - ok)}$$

Mass balance for Chlorides at the potable water supply intake:

$$\begin{aligned} (\text{sf @ PWS})(\text{bkrd. conc.}) + (\text{wf})(x) &= (\text{tot. flow})(\text{criteria}) \\ (90.7 \text{ cfs})(0 \text{ mg/l}) + (0.176 \text{ cfs})(x) &= (90.876 \text{ cfs})(250 \text{ mg/l}) \end{aligned}$$

$$x = 129,085 \text{ mg/l (renewal application maximum was 4,220 mg/l - ok)}$$

Mass balance for TDS at the potable water supply intake:

$$\begin{aligned} (\text{sf @ PWS})(\text{bkrd. conc.}) + (\text{wf})(x) &= (\text{tot. flow})(\text{criteria}) \\ (90.7 \text{ cfs})(0 \text{ mg/l}) + (0.176 \text{ cfs})(x) &= (90.876 \text{ cfs})(500 \text{ mg/l}) \end{aligned}$$

$$x = 258,170 \text{ mg/l (renewal application maximum was 21,600 mg/l - ok)}$$

f. Ammonia-Nitrogen (NH<sub>3</sub>-N)

Median discharge pH to be used: 7.7 Standard Units (S.U.)  
Basis: Average pH value from DMR summary

Discharge temperature: 25°C (default value used in the absence of data)

Median stream pH to be used: 4.5 Standard Units (S.U.)  
Basis: 6/9/2009 Toby Creek TMDL Report

Stream Temperature: 20°C (default value used for CWF modeling)

Background NH<sub>3</sub>-N concentration: 0.1 mg/l  
Basis: Default value.

Calculated summer NH<sub>3</sub>-N limits: 25.0 mg/l (monthly average)  
62.5 mg/l (instantaneous maximum)

Calculated summer NH<sub>3</sub>-N limits: 75.0 mg/l (monthly average)  
187.5 mg/l (instantaneous maximum)

Result: WQ modeling confirmed that the above technology-based limits for landfill leachate are protective (see Attachment 5). The monthly average limits are the same as the previous NPDES Permit and will be retained. The instantaneous maximum limits were calculated incorrectly in previous renewals as 62.0 and 186.0. Since the lower limits are being attained, they will be retained.

g. BOD<sub>5</sub>

Median discharge pH to be used: 7.7 Standard Units (S.U.)  
Basis: Average pH value from DMR summary

Discharge temperature: 25°C (default value used in the absence of data)

Median stream pH to be used: 4.5 Standard Units (S.U.)  
Basis: 6/9/2009 Toby Creek TMDL Report

Stream Temperature: 20°C (default value used for CWF modeling)

Background BOD concentration: 2.0 mg/l  
Basis: Default value

BOD<sub>5</sub> limits: 53 mg/l (monthly average)  
163 mg/l (instantaneous maximum)

Result: WQ modeling confirmed that the technology-based limits set in 40 CFR 437.42 for Centralized Waste Treatment (CWT) facilities that receive waste from the metals (part A) and organics (part C) subcategories are protective (see Attachment 5). The limits are the same as the previous NPDES Permit and will be retained.

h. Total Residual Chlorine (TRC)

No limit necessary

TRC limits:  $\frac{0.5}{1.6}$  mg/l (monthly average)  
mg/l (instantaneous maximum)

Basis: The technology-based TRC limits above were calculated using the Department's TRC Calculation Spreadsheet (see Attachment 12). The limits are new with this NPDES Permit renewal based on Alan Poyer's inspection and email regarding the new use of chlorination and dechlorination being used in the treatment process (see Attachment 13).

#### 4. Reasonable Potential Analysis:

A Reasonable Potential Analysis was performed in accordance with State practices for Outfall 001 by first using the Toxics Screening Analysis Spreadsheet (see Attachment 3) to determine which parameters should be modeled using the Pentox program (see Attachment 4). The following parameters were modeled for Outfall 001:

Total Dissolved Solids, Chloride, Sulfate, Fluoride, Total Aluminum, Total Antimony, Total Arsenic, Total Boron, Total Cadmium, Total Cobalt, Total Copper, Total Iron, Total Lead, Total Manganese, Total Mercury, Total Nickel, Total Phenols (Phenolics), Total Selenium, Total Silver, Acrylonitrile, Benzene, Carbon Tetrachloride, Chlorodibromomethane, Dichlorobromomethane, 1,2-Dichloroethane, 1,3-Dichloropropylene, 1,1,2,2-Tetrachloroethane, Tetrachloroethylene, 1,1,2-Trichloroethane, Vinyl Chloride, 2,4-Dinitrophenol, Bis(2-Ethylhexyl)Phthalate, and Toxaphene.

Total Vanadium, p-Cresol, Free Cyanide, and Acetone were also modeled based on sample results in the renewal application since those parameters are not included in the Toxics Screening Analysis Spreadsheet.

Median stream pH to be used: 4.5 Standard Units (S.U.)  
Stream hardness to be used: 421 mg/l

Basis: 6/9/2009 Toby Creek TMDL Report (pH) and renewal application sampling (hardness)

Median discharge pH to be used: 7.7 Standard Units (S.U.)  
Discharge hardness to be used: 374 mg/l

Basis: eDMR and Renewal application sampling

Results: WQBELs were calculated using the Pentox program (see Attachment 4) for Benzo(a)Pyrene, 3,4-Benzofluoranthene, Benzo(k)Fluoranthene, Dibenzo(a,h)Anthracene, Indeno(1,2,3-cd)Pyrene, Aldrin, Dieldrin, and Toxaphene.

The WQBELs for Benzo(a)Pyrene, 3,4-Benzofluoranthene, Benzo(k)Fluoranthene, Dibenzo(a,h)Anthracene, Indeno(1,2,3-cd)Pyrene, Aldrin, and Dieldrin were eliminated in the Toxics Screening Analysis Spreadsheet (see Attachment 3) based on new sampling results provided on January 24, 2020 (see Attachment 8) in response to a pre-draft survey letter mailed on October 24, 2019 (see Attachment 7).

In addition, in response to the pre-draft survey letter mailed on October 24, 2019 (see Attachment 7), Toxaphene sampling was submitted on March 23, 2020 (see Attachment 9). Based on the Toxaphene sampling, the WQBEL for Toxaphene was eliminated in the Toxics Screening Analysis Spreadsheet (see Attachment 3)

The WQBEL calculated for Free Cyanide is slightly more restrictive than the previous permit. Similar to the previous NPDES Permit Amendment, the concentrations for Free Cyanide were set as monitor only with limits set for the mass loadings. Based on the permit application and eDMR data, the new limit is attainable and will be set to begin immediately.

A comparison of the previous limits, the new WQBELs, and the ELGs was performed to determine which limits are most protective (see Attachment 6).

The sample types for the ELG technology-based limits for o-Cresol, Acetone, Acetophenone,

2-Butanone, p-Cresol, and Pyridine were changed from grabs to 24-hour composites to match all the other parameters. The sampling frequencies were changed from 2/year to 1/6 months due to changes in WMS.

Mass loading monitoring was added with this renewal for all the parameters resulting from the ELGs since the flow is measured per the SOP, and to match the other parameters that already have mass loading monitoring.

**5. Effluent Color Analysis:**

Similar to the previous NPDES permit, a mass balance equation was used to determine the maximum Color that the landfill could discharge while still meeting the Chapter 93.7 Water Quality Criteria of 75 color units on the Platinum-Cobalt scale.

$$Q_s D_s + Q_d D_d = Q_t D_t, \text{ where: } \begin{array}{ll} Q_s = \text{Stream Flow} & = 4.77 \text{ cfs} \\ D_s = \text{Stream Concentration} & = 0 \text{ color units (assumed)} \\ Q_d = \text{Discharge Flow} & = 0.176 \text{ cfs} \\ D_d = \text{Discharge Concentration} & = \text{to be determined} \\ Q_t = Q_s + Q_d & = 4.77 + 0.176 = 4.946 \\ D_t = \text{Chapter 93 Color Criteria} & = 75 \text{ color units} \end{array}$$

$$\text{Solving for } D_d = (Q_t D_t - Q_s D_s) / Q_d = [(4.946 \text{ cfs} \times 75 \text{ color units}) - (4.77 \text{ cfs} \times 0 \text{ color units})] / 0.176 \text{ cfs}$$

$$D_d = \underline{2,107 \text{ color units}}$$

The General Water Quality Criteria Implementation SOP was developed since the past permit issuance. In accordance with the SOP, Color was also evaluated utilizing Pentox and the results were 1,833 color units. The previously calculated WQBEL for Color of 1,001 color units will be retained since it is attainable.

**6. Antibacksliding**

The limits for Total Antimony are less restrictive than in the previous permit. Antibacksliding is avoided due to technical mistakes involving the previous modeling (40 CFR §122.44 (B)(2)).

**7. Approved Chemical Additives:**

Discharge Location	Chemical Name	Purpose	Maximum Usage Rate	Units
001	Anionic Polymer	Flocculation	5	gpd
001	Cationic Polymer	Flocculation	60	gpd
001	Nonionic Polymer	Flocculation	7	gpd
001	Caustic Soda	pH adjustment	500	gpd
001	Carbon Dioxide	pH adjustment	80	lbs/day
001	Ferric Chloride	Coagulant	1,000	ppm
001	Aluminum Coagulant	Coagulant	300	ppm
001	NS 447	Antiscalant	300	ppm
001	Sodium Hypochlorite	Disinfection	2	gph
001	Bioremove 5805	Bioaugmentation	10	lbs/day
001	MB 8	Bioaugmentation	6	lbs/day
001	Sodium Hexametaphosphate	Nutrient	100	lbs/day
001	Hydrochloric Acid	pH adjustment	90	gph
001	Sulfuric Acid	pH adjustment	30	gph
001	Sodium Bisulfite	Residual Chlorine Reduction	5	gph



001	Oil Based Defoamer	Foam Control	7	gpd
001	Si Based Defoamer	Foam Control	4	gpd
001	NS 2690 (proposed)	Coagulant	50	ppm
001	NS 7005 (proposed)	Metal Precipitant	50	ppm
001	NS 7006 (proposed)	Metal Precipitant	50	ppm

**8. Treatment of Natural Gas-Related Wastewater:**

This facility is no longer accepting wastewaters associated with natural gas wells due to the increased monitoring and sampling requirements associated with the acceptance of such wastes.

The permittee had been accepting brine wastewater from natural gas production wells since 2001. A Waste Management Form U was submitted on March 28, 2001 to accept 60 to 80 gallons per year of brine wastewater from Destiny, Inc. A Waste Management Form U was submitted on January 29, 2003 to accept up to 4,000 gallons per month of brine wastewater from American Refining and Exploration, Inc. This facility was classified as an authorized load / no change with regards to Chapter 95.10.

**9. Attachment List:**

- Attachment 1 - Topographical Map of the Facility Area
- Attachment 2 - Aerial Map of the STP
- Attachment 3 - Toxics Screening Analysis Spreadsheet
- Attachment 4 - Pentox Modeling Printouts
- Attachment 5 - WQ Modeling Printouts
- Attachment 6 - Comparison of Limits
- Attachment 7 - October 24, 2019 Pre-Draft Survey Letter
- Attachment 8 - January 24, 2020 Response to the Pre-Draft Survey Letter
- Attachment 9 - March 23, 2020 Response to the Pre-Draft Survey Letter (Toxaphene)
- Attachment 10 - PA DEP response letter regarding WLAs for Aluminum, Iron, and Manganese
- Attachment 11 - Open violations in efacts for client ID
- Attachment 12 - TRC\_Calc Spreadsheet
- Attachment 13 - Email from Alan Poyer regarding chlorination/dechlorination

If viewing this electronically, please refer to the following PDF to view the above Attachments:



Adobe Acrobat Document

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the “NPDES Permit Writer’s Manual” (362-0400-001), SOPs and/or BPJ.

**Outfall 001, Effective Period: Permit Effective Date through November 30, 2023.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Quarterly	Daily Maximum	Minimum	Average Quarterly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report Avg Mo	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	10.0	Continuous	Measured
Total Residual Chlorine (TRC)	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/day	Grab
Color (Pt-Co Units)	XXX	XXX	XXX	1001 Avg Mo	2002	2502	2/month	24-Hr Composite
BOD5	Report Avg Mo	Report	XXX	53.0 Avg Mo	163.0	163	2/month	24-Hr Composite
TSS	Report Avg Mo	Report	XXX	31.0 Avg Mo	60.0	77.5	2/month	24-Hr Composite
Total Dissolved Solids	28456 Avg Mo	56912	XXX	Report Avg Mo	Report	XXX	2/month	24-Hr Composite
Osmotic Pressure (mOs/kg)	XXX	XXX	XXX	1058 Avg Mo	2117	2646	2/month	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	38.0 Avg Mo	127.0	127	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	156 Avg Mo	312	XXX	75 Avg Mo	150	186	2/month	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	52.0 Avg Mo	104.0	XXX	25.0 Avg Mo	50.0	62	2/month	24-Hr Composite
Total Aluminum	XXX	2.55	XXX	XXX	Report	XXX	2/month	24-Hr Composite

Outfall 001 , Continued (from Permit Effective Date through November 30, 2023 )

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Quarterly	Daily Maximum	Minimum	Average Quarterly	Daily Maximum	Instant. Maximum		
Total Antimony	0.147	0.295	XXX	0.157	0.314	0.393	1/quarter	24-Hr Composite
Total Arsenic	Report Avg Mo	Report	XXX	0.104 Avg Mo	0.162	0.26	2/month	24-Hr Composite
Total Cadmium	0.037	0.075	XXX	0.018	0.036	0.045	1/quarter	24-Hr Composite
Total Chromium	Report	Report	XXX	3.07	15.5	15.5	1/quarter	24-Hr Composite
Total Cobalt	Report	Report	XXX	0.124	0.192	0.31	1/quarter	24-Hr Composite
Total Copper	1.555	3.11	XXX	0.746	1.492	1.865	1/quarter	24-Hr Composite
Free Cyanide	0.245 Avg Mo	0.489	XXX	Report Avg Mo	Report	XXX	2/month	24-Hr Composite
Total Iron	XXX	5.91	XXX	XXX	Report	XXX	2/month	24-Hr Composite
Total Lead	Report	Report	XXX	0.283	1.32	1.32	1/quarter	24-Hr Composite
Total Manganese	XXX	0.62	XXX	XXX	Report	XXX	2/month	24-Hr Composite
Total Mercury	0.0012	0.0024	XXX	0.0006	0.0012	0.0015	1/quarter	24-Hr Composite
Total Nickel	Report	Report	XXX	1.45	3.95	3.95	1/quarter	24-Hr Composite
Total Selenium	0.241 Avg Mo	0.483	XXX	0.116 Avg Mo	0.232	0.29	2/month	24-Hr Composite
Total Silver	Report	Report	XXX	0.0351	0.120	0.12	1/quarter	24-Hr Composite
Total Tin	Report	Report	XXX	0.120	0.409	0.409	1/quarter	24-Hr Composite
Total Titanium	Report	Report	XXX	0.0618	0.0947	0.1545	1/quarter	24-Hr Composite
Total Vanadium	Report	Report	XXX	0.0662	0.218	0.218	1/quarter	24-Hr Composite
Total Zinc	Report	Report	XXX	0.420	0.497	1.05	1/quarter	24-Hr Composite

Outfall 001 , Continued (from Permit Effective Date through November 30, 2023 )

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Quarterly	Daily Maximum	Minimum	Average Quarterly	Daily Maximum	Instant. Maximum		
o-Cresol	Report SEMI AVG	Report	XXX	0.561 SEMI AVG	1.92	1.92	1/6 months	24-Hr Composite
2,4,6-Trichlorophenol	Report SEMI AVG	Report	XXX	0.106 SEMI AVG	0.155	0.265	1/6 months	24-Hr Composite
Phenol	Report SEMI AVG	Report	XXX	1.08 SEMI AVG	3.65	3.65	1/6 months	24-Hr Composite
Acetone	Report SEMI AVG	Report	XXX	7.97 SEMI AVG	30.2	30.2	1/6 months	24-Hr Composite
Acetophenone	Report SEMI AVG	Report	XXX	0.0562 SEMI AVG	0.114	0.14	1/6 months	24-Hr Composite
2-Butanone	Report SEMI AVG	Report	XXX	1.85 SEMI AVG	4.81	4.81	1/6 months	Grab
p-Cresol	Report SEMI AVG	Report	XXX	0.205 SEMI AVG	0.698	0.698	1/6 months	Grab
Pyridine	Report SEMI AVG	Report	XXX	0.182 SEMI AVG	0.370	0.455	1/6 months	Grab

Samples taken at the following location: Outfall 001, prior to mixing with any other wastewaters.

Flow and TRC are monitor only based on Chapter 92a.61. The limits for Oil and Grease are technology-based on Chapter 95.2. The limits for Fecal Coliforms are technology-based on Chapter 92a.47. The limits for Ammonia-Nitrogen technology-based on Chapter 93.7. The limits for pH are technology-based on Chapter 95.2.

The limits for Color, Osmotic Pressure, Total Aluminum, Total Antimony, Total Cadmium, Total Copper, Total Iron, Total Manganese, Total Mercury, Total Selenium, and Free Cyanide are water quality-based on Chapter 16. The limits for TDS are water quality-based on Chapter 95.10.

The limits for BOD5, Total Suspended Solids, Oil and Grease, Arsenic, Chromium, Cobalt, Lead, Nickel, Silver, Tin, Titanium, Vanadium, Zinc, Acetone, Acetophenone, 2-Butanone, o-Cresol, p-Cresol, Phenol, Pyridine, and 2,4,6-Trichlorophenol are technology based on BPT-40 CFR 437.42 for Centralized Waste Treatment (CWT) facilities that receive waste from the metals (part A) and organics (part C) subcategories.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the “NPDES Permit Writer’s Manual” (362-0400-001), SOPs and/or BPJ.

**Outfall 001, Effective Period: December 1, 2023 through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Quarterly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report Avg Mo	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	10.0	Continuous	Measured
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.5 Daily Max	XXX	1.6	1/day	Grab
Color (Pt-Co Units)	XXX	XXX	XXX	1001	2002	2502	2/month	24-Hr Composite
BOD5	Report Avg Mo	Report	XXX	53.0	163.0	163	2/month	24-Hr Composite
TSS	Report Avg Mo	Report	XXX	31.0	60.0	77.5	2/month	24-Hr Composite
Total Dissolved Solids	28456 Avg Mo	56912	XXX	Report	Report	XXX	2/month	24-Hr Composite
Osmotic Pressure (mOs/kg)	XXX	XXX	XXX	1058	2117	2646	2/month	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	38.0	127.0	127	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	156 Avg Mo	312	XXX	75	150	186	2/month	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	52.0 Avg Mo	104.0	XXX	25.0	50.0	62	2/month	24-Hr Composite

Outfall 001 , Continued (from December 1, 2023 through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Quarterly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Total Aluminum	XXX	2.55	XXX	XXX	Report	XXX	2/month	24-Hr Composite
Total Antimony	0.147	0.295	XXX	0.157 Avg Qrtly	0.314	0.393	1/quarter	24-Hr Composite
Total Arsenic	Report Avg Mo	Report	XXX	0.104	0.162	0.26	2/month	24-Hr Composite
Total Cadmium	0.037	0.075	XXX	0.018 Avg Qrtly	0.036	0.045	1/quarter	24-Hr Composite
Total Chromium	Report	Report	XXX	3.07 Avg Qrtly	15.5	15.5	1/quarter	24-Hr Composite
Total Cobalt	Report	Report	XXX	0.124 Avg Qrtly	0.192	0.31	1/quarter	24-Hr Composite
Total Copper	1.555	3.11	XXX	0.746 Avg Qrtly	1.492	1.865	1/quarter	24-Hr Composite
Free Cyanide	0.245 Avg Mo	0.489	XXX	Report	Report	XXX	2/month	24-Hr Composite
Total Iron	XXX	5.91	XXX	XXX	Report	XXX	2/month	24-Hr Composite
Total Lead	Report	Report	XXX	0.283 Avg Qrtly	1.32	1.32	1/quarter	24-Hr Composite
Total Manganese	XXX	0.62	XXX	XXX	Report	XXX	2/month	24-Hr Composite
Total Mercury	0.0012	0.0024	XXX	0.0006 Avg Qrtly	0.0012	0.0015	1/quarter	24-Hr Composite
Total Nickel	Report	Report	XXX	1.45 Avg Qrtly	3.95	3.95	1/quarter	24-Hr Composite
Total Selenium	0.241 Avg Mo	0.483	XXX	0.116	0.232	0.29	2/month	24-Hr Composite
Total Silver	Report	Report	XXX	0.0351 Avg Qrtly	0.120	0.12	1/quarter	24-Hr Composite
Total Tin	Report	Report	XXX	0.120 Avg Qrtly	0.409	0.409	1/quarter	24-Hr Composite
Total Titanium	Report	Report	XXX	0.0618 Daily Max	0.0947	0.1545	1/quarter	24-Hr Composite
Total Vanadium	Report	Report	XXX	0.0662 Avg Qrtly	0.218	0.218	1/quarter	24-Hr Composite

Outfall 001 , Continued (from December 1, 2023 through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Quarterly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Total Zinc	Report	Report	XXX	0.420 Avg Qrtly	0.497	1.05	1/quarter	24-Hr Composite
o-Cresol	Report SEMI AVG	Report	XXX	0.561 SEMI AVG	1.92	1.92	1/6 months	24-Hr Composite
2,4,6-Trichlorophenol	Report SEMI AVG	Report	XXX	0.106 SEMI AVG	0.155	0.265	1/6 months	24-Hr Composite
Phenol	Report SEMI AVG	Report	XXX	1.08 SEMI AVG	3.65	3.65	1/6 months	24-Hr Composite
Acetone	Report SEMI AVG	Report	XXX	7.97 SEMI AVG	30.2	30.2	1/6 months	24-Hr Composite
Acetophenone	Report SEMI AVG	Report	XXX	0.0562 SEMI AVG	0.114	0.14	1/6 months	24-Hr Composite
2-Butanone	Report SEMI AVG	Report	XXX	1.85 SEMI AVG	4.81	4.81	1/6 months	Grab
p-Cresol	Report SEMI AVG	Report	XXX	0.205 SEMI AVG	0.698	0.698	1/6 months	Grab
Pyridine	Report SEMI AVG	Report	XXX	0.182 SEMI AVG	0.370	0.455	1/6 months	Grab

Samples taken at the following location: Outfall 001, prior to mixing with any other wastewaters.

Flow is monitor only based on Chapter 92a.61. The limits for TRC are technology-based on Chapter 92a.48. The limits for Oil and Grease are technology-based on Chapter 95.2. The limits for Fecal Coliforms are technology-based on Chapter 92a.47. The limits for Ammonia-Nitrogen technology-based on Chapter 93.7. The limits for pH are technology-based on Chapter 95.2.

The limits for Color, Osmotic Pressure, Total Aluminum, Total Antimony, Total Cadmium, Total Copper, Total Iron, Total Manganese, Total Mercury, Total Selenium, and Free Cyanide are water quality-based on Chapter 16. The limits for TDS are water quality-based on Chapter 95.10.

The limits for BOD5, Total Suspended Solids, Oil and Grease, Arsenic, Chromium, Cobalt, Lead, Nickel, Silver, Tin, Titanium, Vanadium, Zinc, Acetone, Acetophenone, 2-Butanone, o-Cresol, p-Cresol, Phenol, Pyridine, and 2,4,6-Trichlorophenol are technology based on BPT-40 CFR 437.42 for Centralized Waste Treatment (CWT) facilities that receive waste from the metals (part A) and organics (part C) subcategories.

Compliance History

DMR Data for Outfall 001 (from September 1, 2019 to August 31, 2020)

Parameter	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19
Flow (MGD) Average Monthly	0.07480	0.09938	0.09863	0.10041	0.09990	0.09733	0.07203	0.06870	0.06278	0.08561	0.10074	0.11947
Flow (MGD) Daily Maximum	135629	0.16000	0.13471	0.13451	0.11939	0.10935	0.08519	0.08774	0.09740	0.10043	0.12575	0.13156
pH (S.U.) Minimum	6.7	7.4	7.2	9.3	9.3	9.9	9.9	9.8	9.6	8.4	8.9	8.8
pH (S.U.) Maximum	7.6	9.6	12.4	10	9.9	10	10	9.9	9.9	10	9.6	9.2
Color (Pt-Co Units) Average Monthly	525	450	225	275	95	225	190	725	500	200	270	318
Color (Pt-Co Units) Daily Maximum	700	700	250	350	150	250	200	800	600	300	400	375
BOD5 (lbs/day) Average Monthly	7.7	8.2	21.7	16.6	20.8	19.5	16	14.7	20.9	40	19	12
BOD5 (lbs/day) Daily Maximum	10.0	9	24	18	24	20	17	15	22	54	20	14
BOD5 (mg/L) Average Monthly	7.9	13.3	21.7	18	22	26	24	26	37	50	23	14
BOD5 (mg/L) Daily Maximum	8.7	15.8	22	19	24	28.5	27	27	42	66	23	16
TSS (lbs/day) Average Monthly	33	24	17	13	12	19	9	10	10.6	5	6	7
TSS (lbs/day) Daily Maximum	45	38	13	15	15	27	11	13	12.3	8	10	8
TSS (mg/L) Average Monthly	33	40	13	14	13	26.7	14	18	18.5	6	7	8
TSS (mg/L) Daily Maximum	40	65	15	16	15	39	17	26	20	10	12	8
Total Dissolved Solids (lbs/day) Average Monthly	7235	4306	4808	8466	7720	7673	6050	8642	5116	6949	8025	13477
Total Dissolved Solids (lbs/day) Daily Maximum	7319	4603	7930	9069	8534	9604	6578	9246	5952	7529	8674	14615
Total Dissolved Solids (mg/L) Average Monthly	7900	6875	5295	9090	8125	10585	9035	15200	8945	8975	9870	14550
Total Dissolved Solids (mg/L) Daily Maximum	9330	6900	9090	9870	8570	14000	10300	15600	9710	9050	10200	14600



Osmotic Pressure (mOs/kg) Average Monthly	308	280	315	290	305	308	358	378	335	330	303	315
Osmotic Pressure (mOs/kg) Daily Maximum	330	285	370	310	360	315	370	385	370	340	305	325
Oil and Grease (mg/L) Average Monthly	12.2	11.8	10.6	11.0	9.9	8.5	14.5	9.98	16.1	11.4	16.0	8.9
Oil and Grease (mg/L) Daily Maximum	13.2	12.8	11.1	11.4	10.6	10.6	16.1	15	16.6	17.8	17.2	16.6
Fecal Coliform (CFU/100 ml) Geometric Mean	6.4	2	1	1	1	1	1	1	1	1	1	1
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	10	4	1	1	1	1	1	1	1	1	1	1
Ammonia (lbs/day) Average Monthly	4	9	1.4	9	62	150	171	301	76	19	2.6	15
Ammonia (lbs/day) Daily Maximum	4	13	1.65	14	95	170	190	345	135	35	5.1	19
Ammonia (mg/L) Average Monthly	5	15	1	10	64	201	255	526	127	26	3.4	17
Ammonia (mg/L) Daily Maximum	5.5	22	1.65	15.6	95	213	298	553	220	49	6.6	23
Total Aluminum (lbs/day) Daily Maximum	5.605	0.457	0.173	0.139	0.122	1.092	0.816	0.577	0.858	0.109	0.027	0.119
Total Aluminum (mg/L) Daily Maximum	4.955	0.84	0.154	0.151	0.356	1.363	1.149	1.12	1.4	0.152	0.083	0.118
Total Antimony (lbs/day) Average Monthly			0.0198			0.009			0.021			0.008
Total Antimony (lbs/day) Daily Maximum			0.0105			0.017			0.0340			0.018
Total Antimony (mg/L) Average Monthly			0.010			0.019			0.026			0.008
Total Antimony (mg/L) Daily Maximum			0.0198			0.032			0.040			0.0213
Total Arsenic (lbs/day) Average Monthly	0.020	<0.020	0.005	0.003	0.009	0.008	0.006	0.014	0.014	0.0118	0.014	0.032
Total Arsenic (lbs/day) Daily Maximum	0.033	<0.027	0.006	0.015	0.010	0.009	0.006	0.021	0.019	0.012	0.02	0.036

Total Arsenic (mg/L) Average Monthly	0.0191	<0.0329	0.0045	0.0111	0.0093	0.0102	0.00925	0.025	0.0236	0.0142	0.0172	0.0355
Total Arsenic (mg/L) Daily Maximum	0.0292	<0.0465	0.005	0.016	0.0102	0.0113	0.010	0.040	0.0312	0.0149	0.0264	0.0426
Total Cadmium (lbs/day) Average Monthly			<0.002			0.001			<0.0016			0.003
Total Cadmium (lbs/day) Daily Maximum			<0.002			0.001			<0.0016			0.003
Total Cadmium (mg/L) Average Monthly			<0.002			0.002			<0.0020			0.003
Total Cadmium (mg/L) Daily Maximum			<0.002			0.002			<0.0020			0.003
Total Chromium (lbs/day) Average Monthly			0.016			0.026			0.02330			0.013
Total Chromium (lbs/day) Daily Maximum			0.016			0.026			0.02330			0.013
Total Chromium (mg/L) Average Monthly			0.018			0.037			0.0280			0.016
Total Chromium (mg/L) Daily Maximum			0.018			0.037			0.0280			0.016
Total Cobalt (lbs/day) Average Monthly			0.0027			0.005			<0.0025			0.003
Total Cobalt (lbs/day) Daily Maximum			0.0027			0.005			<0.0025			0.003
Total Cobalt (mg/L) Average Monthly			0.003			0.007			< 0.0030			0.004
Total Cobalt (mg/L) Daily Maximum			0.003			0.007			< 0.0030			0.004
Total Copper (lbs/day) Average Monthly			0.026			0.027			0.05075			0.031
Total Copper (lbs/day) Daily Maximum			0.026			0.027			0.05075			0.031
Total Copper (mg/L) Average Monthly			0.029			0.038			0.0610			0.037
Total Copper (mg/L) Daily Maximum			0.029			0.038			0.0610			0.037
Free Cyanide (lbs/day) Average Monthly	0.015	0.042	0.043	0.112	0.128	0.066	0.040	0.011	0.020	0.080	0.067	0.025

Free Cyanide (lbs/day) Daily Maximum	0.023	0.0075	0.061	0.119	0.139	0.077	0.048	0.012	0.027	0.108	0.083	0.030
Free Cyanide (mg/L) Average Monthly	0.015	0.0675	0.0465	0.12	0.135	0.088	0.0585	0.02	0.035	0.101	0.082	0.027
Free Cyanide (mg/L) Daily Maximum	0.023	0.081	0.07	0.13	0.14	0.096	0.067	0.02	0.044	0.13	0.098	0.03
Total Iron (lbs/day) Daily Maximum	10.72	0.170	0.166	0.125	0.183	0.086	0.160	0.502	0.261	0.056	0.191	0.202
Total Iron (mg/L) Daily Maximum	9.48	1.13	1.48	0.136	0.184	0.308	0.250	0.974	0.426	0.203	0.247	0.2
Total Lead (lbs/day) Average Monthly			<0.0019			0.001			<0.0016			0.003
Total Lead (lbs/day) Daily Maximum			<0.0019			0.001			<0.0016			0.003
Total Lead (mg/L) Average Monthly			<0.002			0.002			<0.0020			0.003
Total Lead (mg/L) Daily Maximum			<0.002			0.002			<0.0020			0.003
Total Manganese (lbs/day) Daily Maximum	5.71	2.491	0.61	0.822	0.762	0.379	0.618	0.520	0.913	0.314	0.375	0.963
Total Manganese (mg/L) Daily Maximum	5.045	4.255	0.699	0.491	0.847	0.552	0.968	1.01	1.49	0.439	0.48	1.139
Total Mercury (lbs/day) Average Monthly			<0.0002			0.0002			<0.00017			0.0002
Total Mercury (lbs/day) Daily Maximum			<0.0002			0.0002			<0.00017			0.0002
Total Mercury (mg/L) Average Monthly			<0.0002			0.0001			< 0.0002			0.0002
Total Mercury (mg/L) Daily Maximum			<0.0002			0.0001			< 0.0002			0.0002
Total Nickel (lbs/day) Average Monthly			0.042			0.040			0.04992			0.018
Total Nickel (lbs/day) Daily Maximum			0.042			0.040			0.04992			0.018
Total Nickel (mg/L) Average Monthly			0.044			0.056			0.0600			0.022
Total Nickel (mg/L) Daily Maximum			0.044			0.056			0.0600			0.022

Total Selenium (lbs/day) Average Monthly	0.002	0.001	0.001	<0.001	0.001	0.001	0.001	0.001	0.00098	0.001	0.005	0.001
Total Selenium (lbs/day) Daily Maximum	0.004	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.0002	0.001	0.009	0.001
Total Selenium (mg/L) Average Monthly	0.00215	0.00145	0.00065	0.00065	0.0007	0.0008	0.0018	0.0013	0.00165	0.001	0.00585	0.00095
Total Selenium (mg/L) Daily Maximum	0.0034	0.0021	0.001	0.0008	0.0008	0.0008	0.002	0.0015	0.0026	0.001	0.011	0.001
Total Silver (lbs/day) Average Monthly			<0.002			0.001			<0.00166			0.003
Total Silver (lbs/day) Daily Maximum			<0.002			0.001			<0.00166			0.003
Total Silver (mg/L) Average Monthly			<0.0020			0.0020			<0.0020			0.0030
Total Silver (mg/L) Daily Maximum			<0.0020			0.002			<0.0020			0.0030
Total Tin (lbs/day) Average Monthly			<0.047			0.036			<0.021			0.0207
Total Tin (lbs/day) Daily Maximum			<0.047			0.036			<0.021			0.0207
Total Tin (mg/L) Average Monthly			<0.05			0.05			<0.025			0.025
Total Tin (mg/L) Daily Maximum			<0.050			0.050			<0.025			0.025
Total Titanium (lbs/day) Average Monthly			<0.024			0.014			<0.021			0.0207
Total Titanium (lbs/day) Daily Maximum			<0.024			0.014			<0.021			0.0207
Total Titanium (mg/L) Average Monthly			<0.0250			0.0200			<0.0250			0.0250
Total Titanium (mg/L) Daily Maximum			<0.0205			0.0200			<0.0250			0.0250
Total Vanadium (lbs/day) Average Monthly			<0.012			0.009			<0.00998			0.0108
Total Vanadium (lbs/day) Daily Maximum			<0.012			0.009			<0.00998			0.0108
Total Vanadium (mg/L) Average Monthly			<0.0120			0.0120			<0.0120			0.0130

Total Vanadium (mg/L) Daily Maximum			<0.012			0.012			<0.0120			0.0130
Total Zinc (lbs/day) Average Monthly			<0.024			0.021			<0.02080			0.0207
Total Zinc (lbs/day) Daily Maximum			<0.024			0.021			<0.02080			0.0207
Total Zinc (mg/L) Average Monthly			<0.025			0.03			<0.0250			0.025
Total Zinc (mg/L) Daily Maximum			<0.025			0.030			<0.0250			0.025
o-Cresol (lbs/day) Average Monthly			<0.0046						<0.00212			
o-Cresol (lbs/day) Daily Maximum			<0.0046						<0.00212			
o-Cresol (mg/L) Average Monthly			<0.005						<0.010			
o-Cresol (mg/L) Daily Maximum			<0.005						<0.010			
2,4,6-Trichlorophenol (lbs/day) Average Monthly			<0.005						<0.00212			
2,4,6-Trichlorophenol (lbs/day) Daily Maximum			<0.005						<0.00212			
2,4,6-Trichlorophenol (mg/L) Average Monthly			<0.005						<0.010			
2,4,6-Trichlorophenol (mg/L) Daily Maximum			<0.005						<0.010			
Phenol (lbs/day) Average Monthly			<0.005						<0.00212			
Phenol (lbs/day) Daily Maximum			<0.005						<0.00212			
Phenol (mg/L) Average Monthly			<0.005						<0.010			
Phenol (mg/L) Daily Maximum			<0.005						<0.010			
Acetone (lbs/day) Average Monthly			<0.023						0.040916			
Acetone (lbs/day) Daily Maximum			<0.023						0.040916			
Acetone (mg/L) Average Monthly			<0.025						0.193			

Acetone (mg/L) Daily Maximum			<0.025						0.193			
Acetophenone (lbs/day) Average Monthly			<0.0046						<0.00212			
Acetophenone (lbs/day) Daily Maximum			<0.0046						<0.00212			
Acetophenone (mg/L) Average Monthly			<0.0050						<0.0100			
Acetophenone (mg/L) Daily Maximum			<0.005						<0.0100			
2-Butanone (lbs/day) Average Monthly			<0.0046						0.002268			
2-Butanone (lbs/day) Daily Maximum			<0.0046						0.002268			
2-Butanone (mg/L) Average Monthly			<0.005						0.0107			
2-Butanone (mg/L) Daily Maximum			<0.005						0.0107			
p-Cresol (lbs/day) Average Monthly			<0.0046						<0.00212			
p-Cresol (lbs/day) Daily Maximum			<0.0046						<0.00212			
p-Cresol (mg/L) Average Monthly			<0.005						<0.010			
p-Cresol (mg/L) Daily Maximum			<0.005						<0.010			
Pyridine (lbs/day) Average Monthly			<0.01						<0.00424			
Pyridine (lbs/day) Daily Maximum			<0.01						<0.00424			
Pyridine (mg/L) Average Monthly			<0.010						<0.020			
Pyridine (mg/L) Daily Maximum			<0.010						<0.020			

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>002</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 17' 49.78"</u>	Longitude	<u>-78° 38' 44.96"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Stormwater</u>			
Receiving Waters	<u>Sawmill Run (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667505</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>
Background/Ambient Data		Data Source	
pH (SU)	<u>-</u>	<u>-</u>	
Temperature (°F)	<u>-</u>	<u>-</u>	
Hardness (mg/L)	<u>-</u>	<u>-</u>	
Other:	<u>-</u>	<u>-</u>	
Nearest Downstream Public Water Supply Intake		<u>Pennsylvania American Water Company - Clarion</u>	
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 002, 003, 004, 005, 006, and 007 all contain similar wastewater consisting of only stormwater. Outfall 007 has been selected as the best representative outfall. Monitoring for Outfalls 002, 003, 004, 005, 006, and 007 will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" for the represented outfalls.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 002, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Semi-Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 002, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.



**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>003</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 17' 45.92"</u>	Longitude	<u>-78° 38' 26.00"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Stormwater</u>			
Receiving Waters	<u>Sawmill Run (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667505</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>
Background/Ambient Data		Data Source	
pH (SU)	<u>-</u>	<u>-</u>	
Temperature (°F)	<u>-</u>	<u>-</u>	
Hardness (mg/L)	<u>-</u>	<u>-</u>	
Other:	<u>-</u>	<u>-</u>	
Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 002, 003, 004, 005, 006, and 007 all contain similar wastewater consisting of only stormwater. Outfall 007 has been selected as the best representative outfall. Monitoring for Outfalls 002, 003, 004, 005, 006, and 007 will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" for the represented outfalls.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 003, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Semi-Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 003, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>004</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 17' 33.20"</u>	Longitude	<u>-78° 38' 27.59"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Stormwater</u>			
Receiving Waters	<u>Sawmill Run (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667505</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>
Background/Ambient Data		Data Source	
pH (SU)	<u>-</u>	<u>-</u>	
Temperature (°F)	<u>-</u>	<u>-</u>	
Hardness (mg/L)	<u>-</u>	<u>-</u>	
Other:	<u>-</u>	<u>-</u>	
Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 002, 003, 004, 005, 006, and 007 all contain similar wastewater consisting of only stormwater. Outfall 007 has been selected as the best representative outfall. Monitoring for Outfalls 002, 003, 004, 005, 006, and 007 will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" for the represented outfalls.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 004, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Semi-Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 004, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>005</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 17' 42.01"</u>	Longitude	<u>-78° 39' 22.79"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>

Wastewater Description: Stormwater

Receiving Waters	<u>Unnamed Tributary to the Little Toby Creek (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667613</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>

Assessment Status Attaining Use(s)

Cause(s) of Impairment -

Source(s) of Impairment -

TMDL Status Final (2009) Name Little Toby Creek

Background/Ambient Data		Data Source
pH (SU)	<u>-</u>	<u>-</u>
Temperature (°F)	<u>-</u>	<u>-</u>
Hardness (mg/L)	<u>-</u>	<u>-</u>
Other:	<u>-</u>	<u>-</u>

Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 002, 003, 004, 005, 006, and 007 all contain similar wastewater consisting of only stormwater. Outfall 007 has been selected as the best representative outfall. Monitoring for Outfalls 002, 003, 004, 005, 006, and 007 will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" for the represented outfalls.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 005, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Semi-Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 005, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>006</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 17' 31.52"</u>	Longitude	<u>-78° 39' 13.00"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Stormwater</u>			
Receiving Waters	<u>Unnamed Tributary to the Little Toby Creek (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667649</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>
Background/Ambient Data		Data Source	
pH (SU)	<u>-</u>	<u>-</u>	
Temperature (°F)	<u>-</u>	<u>-</u>	
Hardness (mg/L)	<u>-</u>	<u>-</u>	
Other:	<u>-</u>	<u>-</u>	
Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 002, 003, 004, 005, 006, and 007 all contain similar wastewater consisting of only stormwater. Outfall 007 has been selected as the best representative outfall. Monitoring for Outfalls 002, 003, 004, 005, 006, and 007 will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" for the represented outfalls.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 006, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Semi-Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 006, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.



**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>007</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 17' 53.10"</u>	Longitude	<u>-78° 38' 47.40"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Stormwater</u>			
Receiving Waters	<u>Sawmill Run (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667505</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>
Background/Ambient Data		Data Source	
pH (SU)	<u>-</u>	<u>-</u>	
Temperature (°F)	<u>-</u>	<u>-</u>	
Hardness (mg/L)	<u>-</u>	<u>-</u>	
Other:	<u>-</u>	<u>-</u>	
Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 002, 003, 004, 005, 006, and 007 all contain similar wastewater consisting of only stormwater. Outfall 007 has been selected as the best representative outfall. Monitoring for Outfalls 002, 003, 004, 005, 006, and 007 will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" for the represented outfalls.

**Compliance History**

DMR Data for Outfall 007 (from September 1, 2019 to August 31, 2020)

Parameter	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19
pH (S.U.) Daily Maximum			7.83						7.78			
BOD5 (mg/L) Daily Maximum			< 24						< 40			
COD (mg/L) Daily Maximum			5						5			
TSS (mg/L) Daily Maximum			< 3						2			
Total Iron (mg/L) Daily Maximum			0.260						0.415			

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 007, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Semi-Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 007, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>008</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 16' 58.48"</u>	Longitude	<u>-78° 38' 46.15"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Stormwater</u>			

Receiving Waters	<u>Unnamed Tributary to the Bear Run (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667843</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>

Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>

Background/Ambient Data		Data Source
pH (SU)	<u>-</u>	<u>-</u>
Temperature (°F)	<u>-</u>	<u>-</u>
Hardness (mg/L)	<u>-</u>	<u>-</u>
Other:	<u>-</u>	<u>-</u>

Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 008, 010, 011, 013, 016, and 017 all contain similar wastewater consisting of only stormwater. Outfall 010 has been selected as the best representative outfall. Monitoring for Outfalls 008, 011, 013, 016, and 017 will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" for the represented outfalls.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 008, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Semi-Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 008, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>009</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 16' 53.74"</u>	Longitude	<u>-78° 39' 0.89"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Stormwater</u>			

Receiving Waters	<u>Unnamed Tributary to the Bear Run (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667843</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>

Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>

Background/Ambient Data		Data Source
pH (SU)	<u>-</u>	<u>-</u>
Temperature (°F)	<u>-</u>	<u>-</u>
Hardness (mg/L)	<u>-</u>	<u>-</u>
Other:	<u>-</u>	<u>-</u>

Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 009, 012, 014, and 015 are future stormwater only outfalls that have not been installed yet. Monitoring will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" since the outfalls don't exist.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 009, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Semi-Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 009, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>010</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 16' 56.56"</u>	Longitude	<u>-78° 39' 0.02"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Stormwater</u>			

Receiving Waters	<u>Unnamed Tributary to the Bear Run (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667843</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>

Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>

Background/Ambient Data		Data Source
pH (SU)	<u>-</u>	<u>-</u>
Temperature (°F)	<u>-</u>	<u>-</u>
Hardness (mg/L)	<u>-</u>	<u>-</u>
Other:	<u>-</u>	<u>-</u>

Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 008, 010, 011, 013, 016, and 017 all contain similar wastewater consisting of only stormwater. Outfall 010 has been selected as the best representative outfall. Monitoring for Outfalls 008, 011, 013, 016, and 017 will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" for the represented outfalls.

**Compliance History**

**DMR Data for Outfall 010 (from September 1, 2019 to August 31, 2020)**

Parameter	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19
pH (S.U.) Daily Maximum			7.57						7.58			
BOD5 (mg/L) Daily Maximum			< 24						< 40			
COD (mg/L) Daily Maximum			5						5			
TSS (mg/L) Daily Maximum			30						10			
Total Iron (mg/L) Daily Maximum			1.02						0.429			

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 010, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 010, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.



**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>011</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 16' 49.80"</u>	Longitude	<u>-78° 39' 21.55"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Stormwater</u>			

Receiving Waters	<u>Unnamed Tributary to the Bear Run (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667843</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>

Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>

Background/Ambient Data		Data Source
pH (SU)	<u>-</u>	<u>-</u>
Temperature (°F)	<u>-</u>	<u>-</u>
Hardness (mg/L)	<u>-</u>	<u>-</u>
Other:	<u>-</u>	<u>-</u>

Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 008, 010, 011, 013, 016, and 017 all contain similar wastewater consisting of only stormwater. Outfall 010 has been selected as the best representative outfall. Monitoring for Outfalls 008, 011, 013, 016, and 017 will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" for the represented outfalls.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 011, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Semi-Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 011, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>012</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 16' 50.28"</u>	Longitude	<u>-78° 39' 46.16"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Stormwater</u>			

Receiving Waters	<u>Unnamed Tributary to the Bear Run (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667947</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>

Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>

Background/Ambient Data		Data Source
pH (SU)	<u>-</u>	<u>-</u>
Temperature (°F)	<u>-</u>	<u>-</u>
Hardness (mg/L)	<u>-</u>	<u>-</u>
Other:	<u>-</u>	<u>-</u>

Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 009, 012, 014, and 015 are future stormwater only outfalls that have not been installed yet. Monitoring will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" since the outfalls don't exist.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 012, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Semi-Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 012, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>013</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 17' 19.08"</u>	Longitude	<u>-78° 39' 41.44"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Stormwater</u>			

Receiving Waters	<u>Unnamed Tributary to the Little Toby Creek (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667755</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>

Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>

Background/Ambient Data		Data Source
pH (SU)	<u>-</u>	<u>-</u>
Temperature (°F)	<u>-</u>	<u>-</u>
Hardness (mg/L)	<u>-</u>	<u>-</u>
Other:	<u>-</u>	<u>-</u>

Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 008, 010, 011, 013, 016, and 017 all contain similar wastewater consisting of only stormwater. Outfall 010 has been selected as the best representative outfall. Monitoring for Outfalls 008, 011, 013, 016, and 017 will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" for the represented outfalls.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 013, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Semi-Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 013, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>014</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 16' 55.24"</u>	Longitude	<u>-78° 40' 16.74"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Stormwater</u>			

Receiving Waters	<u>Unnamed Tributary to the Bear Run (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667947</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>

Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>

Background/Ambient Data		Data Source
pH (SU)	<u>-</u>	<u>-</u>
Temperature (°F)	<u>-</u>	<u>-</u>
Hardness (mg/L)	<u>-</u>	<u>-</u>
Other:	<u>-</u>	<u>-</u>

Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 009, 012, 014, and 015 are future stormwater only outfalls that have not been installed yet. Monitoring will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" since the outfalls don't exist.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 014, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Semi-Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 014, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.



**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>015</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 17' 14.70"</u>	Longitude	<u>-78° 40' 8.55"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Stormwater</u>			

Receiving Waters	<u>Unnamed Tributary to the Little Toby Creek (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667747</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>

Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>Metals</u>		
Source(s) of Impairment	<u>Abandoned Mine Drainage (AMD)</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>

Background/Ambient Data		Data Source
pH (SU)	<u>-</u>	<u>-</u>
Temperature (°F)	<u>-</u>	<u>-</u>
Hardness (mg/L)	<u>-</u>	<u>-</u>
Other:	<u>-</u>	<u>-</u>

Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 009, 012, 014, and 015 are future stormwater only outfalls that have not been installed yet. Monitoring will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" since the outfalls don't exist.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 015, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Semi-Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 015, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>016</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 17' 23.82"</u>	Longitude	<u>-78° 39' 43.30"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Stormwater</u>			

Receiving Waters	<u>Unnamed Tributary to the Little Toby Creek (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667755</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>

Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>

Background/Ambient Data		Data Source
pH (SU)	<u>-</u>	<u>-</u>
Temperature (°F)	<u>-</u>	<u>-</u>
Hardness (mg/L)	<u>-</u>	<u>-</u>
Other:	<u>-</u>	<u>-</u>

Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 008, 010, 011, 013, 016, and 017 all contain similar wastewater consisting of only stormwater. Outfall 010 has been selected as the best representative outfall. Monitoring for Outfalls 008, 011, 013, 016, and 017 will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" for the represented outfalls.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 016, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Semi-Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 016, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>017</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 17' 27.19"</u>	Longitude	<u>-78° 38' 58.81"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>
Wastewater Description: <u>Stormwater</u>			

Receiving Waters	<u>Unnamed Tributary to the Little Toby Creek (CWF)</u>	Stream Code	<u>N/A</u>
NHD Com ID	<u>102667649</u>	RMI	<u>N/A</u>
Drainage Area	<u>-</u>	Yield (cfs/mi <sup>2</sup> )	<u>-</u>
Q <sub>7-10</sub> Flow (cfs)	<u>-</u>	Q <sub>7-10</sub> Basis	<u>-</u>
Elevation (ft)	<u>-</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>

Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>Final (2009)</u>	Name	<u>Little Toby Creek</u>

Background/Ambient Data		Data Source
pH (SU)	<u>-</u>	<u>-</u>
Temperature (°F)	<u>-</u>	<u>-</u>
Hardness (mg/L)	<u>-</u>	<u>-</u>
Other:	<u>-</u>	<u>-</u>

Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>73</u>

Outfalls 008, 010, 011, 013, 016, and 017 all contain similar wastewater consisting of only stormwater. Outfall 010 has been selected as the best representative outfall. Monitoring for Outfalls 008, 011, 013, 016, and 017 will be included in the Draft NPDES Permit, but the Permittee can enter the NODI code of "GG" for the represented outfalls.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 017, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Semi-Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	Report Inst Min	XXX	XXX	Report	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	Report	1/6 months	Grab

Samples taken at the following location: Outfall 017, prior to mixing with any other wastewaters.

Monitoring for pH, COD, Total Suspended Solids (TSS), Ammonia-Nitrogen, and Total Iron is based on the stormwater monitoring requirements for Appendix C facilities (Landfills and Land Application Sites) from the PAG-03 General Permit.