

Application TypeRenewalFacility TypeIndustrialMajor / MinorMinor

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

 Application No.
 PA0093882

 APS ID
 1066890

 Authorization ID
 1402164

Applicant and Facility Information

Applicant Name	Port Authority of Allegheny County	Facility Name	West Mifflin Garage
Applicant Address	345 Sixth Avenue - Third Floor	Facility Address	1011 Lebanon Road
	Pittsburgh, PA 15222-2527		West Mifflin, PA 15122-1035
Applicant Contact	Eric Blisky	Facility Contact	Doug Dusbiber
Applicant Phone	(412) 566-5167	Facility Phone	(412) 566-5170
Client ID	69898	Site ID	250745
SIC Code	4111	Municipality	West Mifflin Borough
SIC Description	Trans. & Utilities - Local And Suburban Transit	County	Allegheny
Date Application Receiv	vedJuly 1, 2022	EPA Waived?	No
Date Application Accep	ted July 8, 2022	If No, Reason	DEP Discretion
Purpose of Application	Renewal NPDES permit coverage		

Summary of Review

Port Authority of Allegheny County (PAT) operates a bus staging and maintenance facility in West Mifflin Borough, Allegheny County. Wastewater discharges from the facility are authorized under NPDES permit PA0093882. It is a bus service and maintenance facility primarily engaged in the repair, cleaning, and staging of Port Authority buses.

The main building houses bus staging areas, a repair and maintenance shop with 12 service bays, 4 bays designated for body work, an indoor bus parking area, a designated power spray washing bay, two bus wash racks, tool storage areas and paint booth. In addition, the main building contains administrative offices, a lunchroom, and a driver waiting room. The fleet consists of approximately 210 buses.

The facility also operates an onsite wastewater treatment facility that treats non-sanitary wastewater generated inside the garage prior to discharge to the Allegheny County Sanitary Authority (ALCOSAN), a publicly owned treatment works (POTW).

West Mifflin Garage is located within a separate storm sewer area, which means the storm sewer system is not connected to the Allegheny County Sanitary Authority (ALCOSAN) treatment facility.

Outfalls 001, 003 and 004 discharge to a storm sewer system on Noble Dr. that discharges to Thompson Run, which is a surface water of the Commonwealth and a tributary of the Monongahela River.

Outfall 002 discharges to a ditch along Route 885 (Lebanon Road) that eventually discharges to an un-named tributary of Streets Run which is surface water of the Commonwealth and a tributary of Monongahela River.

Approve	Deny	Signatures	Date
х		Angela Rohrer / Environmental Engineering Specialist	December 1, 2022
х		Michael E. Fifth, P.E. / Environmental Engineer Manager	December 2, 2022

Summary of Review

Public Participation

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

Discharge, Receiving Waters and Water Supply Information						
Outfall No. 00	01		Design Flow (MGD)	0		
Latitude 4	0º 21' 41"		Longitude	-79º 55' 48"		
Quad Name	Glassport		Quad Code	1606		
Wastewater Des	scription:	Stormwater runoff from b Pollutants of concern inc	ous maintenance and storage are lude oil and grease, BOD, COD,	a. TSS and iron.		
Receiving Wate	rs <u>Thom</u>	ipson Run	Stream Code	37449		
NHD Com ID	9940	8066	RMI	5.5		
Drainage Area	N/A -	- Headwaters	Yield (cfs/mi ²)	0		
Q7-10 Flow (cfs)	0		Q7-10 Basis	USGS Streamstats		
Elevation (ft)	1,220)	Slope (ft/ft)	N/A		
Watershed No.	19-A		Chapter 93 Class.	WWF		
Existing Use	WWF		Existing Use Qualifier	-		
Exceptions to U	se None		Exceptions to Criteria	None		
Assessment Sta	atus	Impaired				
Cause(s) of Imp	airment	Metals, Siltation				
Source(s) of Im	pairment	Abandoned Mine Draina	ge, Urban Runoff/Storm Sewers			
TMDL Status		Final	Name Thompson F	Run		
			_	2		
Nearest Downst	ream Publ	ic Water Supply Intake	Pennsylvania American Wate	r Co.		
PWS Waters	Monong	jahela River	Flow at Intake (cfs)	1,310		
PWS RMI	4.6		Distance from Outfall (mi)	13		

Outfall 001. Drainage from approximately half of all paved areas east of the maintenance building and the Administration Office rooftop drainage enters catch basins, trench drains and roof drains connected to the storm drainage system is treated by 7,000-gallon solids separator and a 15,000-gallon oil/water separator before discharging through Outfall 001, beyond which it enters the municipal drain system on Noble Drive. The non-industrial (non-impacted) areas include approximately half (the western portion) of the Employee and Visitor Parking Lot, the paved administrative Parking Area and the roof of the Administrative Office Area (albeit a small portion of the contiguous Maintenance Building roof) which are treated by the oil/water separator.

Discharge, Receiving Waters and Water Supply Information						
Outfall No. 00	2		Design Flow (MGD)	0		
Latitude 40	^o 22' 31.7 [°]	7"	Longitude	-79º 56' 20.04"		
Quad Name	Glassport		Quad Code	1606		
Wastewater Des	cription:	Treated stormwater runo	ff from bus maintenance and stor	age area.		
Receiving Water	s UNT	to Streets Run	Stream Code	37189		
NHD Com ID	9940	7994	RMI	2.0		
Drainage Area	0 – H	eadwaters	Yield (cfs/mi²)	0		
Q7-10 Flow (cfs)	0		Q7-10 Basis	USGS Streamstats		
Elevation (ft)	1,220)	Slope (ft/ft)	N/A		
Watershed No.	19-A		Chapter 93 Class.	WWF		
Existing Use	WWF	-	Existing Use Qualifier	-		
Exceptions to Us	se <u>None</u>	l	Exceptions to Criteria	None		
Assessment Sta	tus	Impaired				
Cause(s) of Impa	airment	Metals, Siltation				
Source(s) of Imp	airment	Abandoned Mine Draina	ge, Urban Runoff/Storm Sewers			
TMDL Status		Final	Name Streets Run			
Nearest Downsti	eam Publ	ic Water Supply Intake	Pennsylvania American Wate	r Co.		
PWS Waters	Monong	ahela River	Flow at Intake (cfs)	1,310		
PWS RMI	4.6		Distance from Outfall (mi)	4.4		

Outfall 002. Drainage from paved areas north and west of the maintenance building enters catch basins connected to the storm drainage system and is treated by a 3,000-gallon solids separator and an 12,000-gallon oil/water separator before discharging through Outfall 002, beyond which it enters the municipal drain system on Lebanon Road. The facility also discharges stormwater runoff through Outfall 002 from non-industrial (non-impacted) areas which include a limited portion of the maintenance building roof at its northwestern end which bypasses the solids separator and the oil/water separator separator

Outfall No 0	03		Design Flow (MGD)	0
Latitudo 4	00 21' 40"		Longitudo	700 55' 47"
			Congitude	-79° 55 47
	Glassport		Quad Code	1606
Wastewater De	scription:	Stormwater runoff from th	ne bus maintenance garage roof.	
Receiving Wate	ers <u>Thom</u>	pson Run	Stream Code	37449
NHD Com ID	99408	3066	RMI	5.5
Drainage Area	0 – H	eadwaters	Yield (cfs/mi ²)	0
Q ₇₋₁₀ Flow (cfs)	0		Q ₇₋₁₀ Basis	USGS Streamstats
Elevation (ft)	1,220		Slope (ft/ft)	N/A
Watershed No.	19-A		Chapter 93 Class.	WWF
Existing Use	WWF		Existing Use Qualifier	-
Exceptions to U	se None		Exceptions to Criteria	None
Assessment Sta	atus	Impaired		
Cause(s) of Imp	pairment	Metals, Siltation		
Source(s) of Im	pairment	Abandoned Mine Drainag	ge, Urban Runoff/Storm Sewers	
TMDL Status		Final	Name Thompson F	Run
Nearest Downs	tream Publi	c Water Supply Intake	Pennsylvania American Water	r Co.
PWS Waters	Monong	ahela River	Flow at Intake (cfs)	1,310
PWSRMI	4.6		Distance from Outfall (mi)	13

Outfall 003. Drainage from roof drains gathering stormwater from the majority of the maintenance building roof enter the municipal drain system on Noble Drive as Outfall 003. The drainage from the rooftop area is directed to two roof drops at the southern end of the building (near noble Drive) where their combined flow is piped to a manhole (Outfall Sample Point) on the vegetated are located at the extreme south end of the bus garage. From there the flow is piped to a manhole in the Employee and Visitor Parking Lot and then to a catch basin in Noble Drive, which is part of the municipal stormwater drain system. The drainage for this area is not treated before leaving the site.

	DIS	charge, Receiving wa	ters and water Supply Inform	nation
Outfall No. 00)4		Design Flow (MGD)	0
Latitude 40	° 21' 40"		_ Longitude	-79º 55' 45.17"
Quad Name	Glassport		_ Quad Code	1606
Wastewater Des	cription:	Stormwater runoff from t	he lower employee parking lot.	
Pocoiving Water	o Thom		Stroom Codo	27440
	S <u>111011</u>			<u> </u>
	99408	3066		5.5
Drainage Area	<u>0 – H</u>	eadwaters	Yield (cfs/mi ²)	0
Q ₇₋₁₀ Flow (cfs)	0		Q ₇₋₁₀ Basis	USGS Streamstats
Elevation (ft)	1,220		Slope (ft/ft)	N/A
Watershed No.	19-A		Chapter 93 Class.	WWF
Existing Use	WWF		Existing Use Qualifier	-
Exceptions to Us	se None		Exceptions to Criteria	None
Assessment Sta	tus	Impaired		
Cause(s) of Impa	airment	Metals, Siltation		
Source(s) of Imp	airment	Abandoned Mine Draina	ge, Urban Runoff/Storm Sewers	
TMDL Status Final		Name Thompson F	Run	
			·	
Nearest Downsti	ream Publi	c Water Supply Intake	Pennsylvania American Wate	r Co.
PWS Waters	Monong	ahela River	Flow at Intake (cfs)	1,310
PW/S RMI	4.6		Distance from Outfall (mi)	13

Outfall 004. Drainage from remaining areas east of the Maintenance Building (the more eastern portion of this area containing paved and vegetated areas) enters catch basins connected to the storm drainage system and enters the municipal drain system on Noble Drive as Outfall 004.

Drainage from a limited area at the south of the Maintenance Building (primarily from vegetated area) flows onto Noble Drive where it enters the municipal drain system.

Development of Effluent Limitations

Outfall No.	001	Design Flow (MGD)	0
Latitude	40º 21' 41"	Longitude	-79º 55' 48"
Wastewater D	escription:	Treated stormwater runoff from bus maintenance and stora	age area.

Technology-Based Limitations

Stormwater Technology Limits

Outfall 001 will be subject to PAG-03 General Stormwater Permit conditions as a minimum requirement because the outfall discharges stormwater associated with industrial activity. The SIC code for the site is 4111 (Transportation & Utilities – Local and Suburban Transit) and the corresponding appendix of the PAG-03 that would apply to the facility is Appendix L (Land Transportation and Petroleum Stations and Terminals). The reporting requirements applicable to stormwater discharges are shown in Table 1 below. Along with the monitoring requirements, sector specific BMPs included in Appendix L of the PAG-03 will also be included in Part C of the Draft Permit.

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

Parameter	Max Daily Concentration	Benchmark Value Mg/L
Total Suspended Solids (TSS) (mg/L)	Monitor and Report	100
Oil and Grease (mg/L)	Monitor and Report	30

Water Quality-Based Limitations

Stormwater WQBELs

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

Total Maximum Daily Load (TMDL)

The discharges from Outfall 001 are located within the Thompson Run Watershed for which the Department has developed a TMDL. The TMDL was finalized in January 2016 and establishes waste load allocations for the discharge of aluminum and iron within the Thompson Run Watershed. The site's NPDES permit (PA0093882) is listed in the TMDL document, requiring load allocations. Section 303(d) of the Clean Water Act and the U.S. Environmental Protection Agency's Water Quality Planning and Management Regulations (codified at Title 40 of the Code of Federal Regulations Part 130) require states to develop a TMDL for impaired water bodies. A TMDL establishes the amount of a pollutant that a water body can assimilate without exceeding the water quality criteria for that pollutant. TMDLs provide the scientific basis for a state to establish water quality-based controls to reduce pollution from both point and non-point sources in order to restore and maintain the quality of the state's water resources (USEPA 1991a). Stream reaches within the Thompson Run Watershed are included in the state's Section 303(d) list because of various impairments, including metals, pH and sediment. Stream data is then used to calculate minimum pollutant reductions that are necessary to attain water guality criteria levels. Target concentrations published in the TMDL were based on established water quality criteria of 0.750 mg/L total recoverable aluminum and 1.5 mg/L total recoverable iron based on a 30-day average. The reduction needed to meet the minimum water quality standards is then divided between each known point and non-point pollutant source in the form of a watershed allocation. TMDLs prescribe allocations that minimally achieve water quality criteria (i.e., 100 percent use of a stream's assimilative capacity). Calculations used in the development of water quality based effluent limitations are provided below:

Iron: The specific water quality criterion for iron is expressed as a 30-day average of $1.5 \text{ mg}_{\text{L}}$ in 25 Pa. Code § 93.7(a). The criterion is based on the protection of aquatic life and is associated with chronic exposure. There are no other criteria for total iron. Since the duration of the total iron criterion coincides with the 30-day duration of the AML, the 30-day average criterion for total iron is set equal to the AML.

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In addition, because the total iron criterion is associated with chronic exposure, the MDL (representing acute exposure) and the IMAX may be made less stringent according to established procedures described in Section III.C.3.h on Page 13 of the Water Quality Toxics Management Strategy (Doc. # 361-0100-003). These procedures state that a MDL and IMAX may be set at 2 times and 2.5 times the AML, respectively, or there is the option to use multipliers from EPA's Technical Support Document for Water Quality-based Toxics Control, if data are available to support the use of alternative multipliers. Accordingly, TMDL iron limits are proposed for Outfall 001. The proposed iron limits are shown in Table 2.

Table 2. TMDL Limits for Outfall 001

	Discharge Concentrations	TMDI		
Parameter	Outfall 001	Average Monthly	Daily Maximum	Units
Iron, total	0.3	1.5	3.0	mg/L

Based on DMR data Iron is a pollutant of concern and the TMDL limitations should be imposed. An average monthly limit of 1.5mg/L and a daily maximum limit of 3.0mg/L will be imposed for Iron. However, based on the DMR data Aluminum is not a pollutant of concern and does not contribute to the impairment of the Watershed. Therefore, TMDL load allocations and concentration-based limitations for Aluminum will not be imposed, but monitoring for total aluminum will be imposed.

Anti-Backsliding

Effluent limitations in the site's current permit can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(I) and are displayed in Table 3 below. The Total Suspended Solids limitations were previously imposed as Best Professional Judgment Limitations derived using EPA's multisector general permit benchmark values and the site treatment achievability. The Total Iron limitations and the total Aluminum monitoring were previously imposed due to the discharging to a stream with Total Maximum Daily Loads (TMDL). Monitoring for Chemical Oxygen Demand COD was previously imposed because the parameter was a pollutant of concern. The Oil and Grease limits that were imposed are effluent standards for oil and grease from 25 Pa. Code § 95.2(2).

Table 3. Current Effluent Limitation at Outfall 001

Paramatoro	Mass (Ib/day)		Concentration (mg/L)				Monitoring Requirements	
Parameters	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	2/Month	Estimate
Total Suspended Solids	XXX	XXX	XXX	Report	100	XXX	2/Month	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Oil and Grease	XXX	XXX	XXX	15.0	30.0	XXX	2/Month	Grab
Chemical Oxygen Demand	ХХХ	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
pH (S.U.)	XXX	XXX	Report	XXX	Report	XXX	2/Month	Grab

Proposed Effluent Limitations and Monitoring Requirements

The proposed effluent monitoring requirements for Outfall 001 are displayed in Table 4 below. The daily maximum reporting requirement for pH has been replaced with an instantaneous maximum reporting requirement to be consistent with current permitting practices.

A Part C condition is included in the Draft Permit requiring submission of a Corrective Action Plan whenever there are two or more consecutive exceedances of the stormwater benchmark values, which are also included in the Part C condition. These values are not effluent limitations, an exceedance of the benchmark value is not a violation. As describe above, if there are two or more exceedances of the benchmark values, a Corrective Action Plan must be developed and submitted to the Department to evaluate site stormwater controls and BMPs. Benchmark monitoring is a feedback tool, along with routine inspections and visual assessments, for assessing the effectiveness of stormwater controls and BMPs. An exceedance of the benchmark provides permittees with an indication that the facility's controls may not be sufficiently

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controlling pollutants in stormwater. The stormwater benchmark values for Total Suspended Solids, Oil and Grease and Total Iron do not apply to Outfall 001, because Outfall 001 has limitations for these parameters.

Table 4. Proposed Effluent Limitation at Outfall 001

Peremetere	Mass (Ib/day)		Concentration (mg/L)				Monitoring Requirements	
Parameters	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	2/Month	Estimate
Total Suspended Solids	XXX	XXX	XXX	Report	100	XXX	2/Month	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Total Iron	XXX	XXX	XXX	1.5	3.0	XXX	2/Month	Grab
Oil and Grease	XXX	XXX	XXX	15.0	30.0	XXX	2/Month	Grab
Chemical Oxygen Demand	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
pH (S.U.)	XXX	XXX	Report	XXX	XXX	Report	2/Month	Grab

Development of Effluent Limitations

Outfall No.	002		Design Flow (MGD)	0	
Latitude	40º 22' 31.77	11	Longitude	-79º 56' 20.04"	
Wastewater	Description:	Treated stormwater ru	noff from bus maintenance and stora	ade area.	

Technology-Based Limitations

Stormwater Technology Limits

Outfall 002 will be subject to PAG-03 General Stormwater Permit conditions as a minimum requirement because the outfall discharges stormwater associated with industrial activity. The SIC code for the site is 4111 (Transportation & Utilities – Local and Suburban Transit) and the corresponding appendix of the PAG-03 that would apply to the facility is Appendix L (Land Transportation and Petroleum Stations and Terminals). The reporting requirements applicable to stormwater discharges are shown in Table 5 below. Along with the monitoring requirements, sector specific BMPs included in Appendix L of the PAG-03 will also be included in Part C of the Draft Permit.

Table 5. PAG-03 Appendix (L) Monitoring Requirements

Parameter	Max Daily Concentration	Benchmark Value Mg/L
Total Suspended Solids (TSS) (mg/L)	Monitor and Report	100
Oil and Grease (mg/L)	Monitor and Report	30

Water Quality-Based Limitations

Stormwater WQBELs

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

Total Maximum Daily Load (TMDL)

The discharges from Outfall 002 are located within the Streets Run Watershed for which the Department has developed a TMDL. The TMDL was finalized in February 2009 and establishes waste load allocations for the discharge of aluminum and iron within the Streets Run Watershed. Section 303(d) of the Clean Water Act and the U.S. Environmental Protection Agency's Water Quality Planning and Management Regulations (codified at Title 40 of the *Code of Federal Regulations* Part 130) require states to develop a TMDL for impaired water bodies. A TMDL establishes the amount of a pollutant that a water body can assimilate without exceeding the water quality criteria for that pollutant. TMDLs provide the scientific basis for a state to establish water quality-based controls to reduce pollution from both point and non-point sources in order to restore and maintain the quality of the state's water resources (USEPA 1991a). Stream reaches within the Streets Run Watershed are included in the state's Section 303(d) list because of various impairments, including metals, pH and sediment. For Outfall 002, The Street's Run TMDL provides WLAs for aluminum and iron within Outfall 002's receiving stream segment (STRT03). Only aluminum is identified as requiring a reduction. These WLAs are not directed specifically at Outfall 002 discharge, but rather on a sub-watershed level. In addition, the available analytical data also supports the position that BMPs have been effective in controlling Outfall 002 aluminum discharge concentrations. Therefore, TMDL load allocations and concentration-based limitations for Aluminum will not be imposed but monitoring for total aluminum will be imposed.

Anti-Backsliding

Effluent limitations in the site's current permit can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(I) and are displayed in Table 6 below. The Total Suspended Solids limitations were previously imposed as Best Professional Judgment Limitations derived using EPA's multisector general permit benchmark values and the site treatment achievability. The total Aluminum monitoring were previously imposed due to the discharging to a stream with Total Maximum Daily Loads (TMDL). Monitoring for Chemical Oxygen Demand COD was previously imposed because the parameter was pollutant of concern. The Oil and Grease limits were imposed in accordance with 25 Pa. Code § 95.2(2). The Total Iron limitations were previously imposed as Best Professional Judgment Limitations derived using site treatment achievability.

Mass (Ib/d		(lb/day)	Concentration (mg/L)				Monitoring Requirements	
Farameters	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	2/Month	Estimate
Total Suspended Solids	XXX	XXX	XXX	Report	100	XXX	2/Month	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Total Iron	XXX	XXX	XXX	3.5	7.0	XXX	2/Month	Grab
Oil and Grease	XXX	XXX	XXX	15.0	30.0	XXX	2/Month	Grab
Chemical Oxygen Demand	ххх	xxx	xxx	xxx	Report	xxx	1/Quarter	Grab
pH (S.U.)	XXX	XXX	Report	XXX	Report	XXX	2/Month	Grab

Table 6. Current Effluent Limitation at Outfall 002

Proposed Effluent Limitations and Monitoring Requirements

The proposed effluent monitoring requirements for Outfall 002 are displayed in Table 7 below. The daily maximum reporting requirement for pH has been replaced with an instantaneous maximum reporting requirement to be consistent with current permitting practices.

A Part C condition is included in the Draft Permit requiring submission of a Corrective Action Plan whenever there are two or more consecutive exceedances of the stormwater benchmark values, which are also included in the Part C condition. These values are not effluent limitations, an exceedance of the benchmark value is not a violation. As describe above, if there are two or more exceedances of the benchmark values, a Corrective Action Plan must be developed and submitted to the Department to evaluate site stormwater controls and BMPs. Benchmark monitoring is a feedback tool, along with routine inspections and visual assessments, for assessing the effectiveness of stormwater controls and BMPs. An exceedance of the benchmark provides permittees with an indication that the facility's controls may not be sufficiently controlling pollutants in stormwater. The stormwater benchmark values for Total Suspended Solids, Oil and Grease and Total Iron do not apply to Outfall 002, because Outfall 002 has limitations for these parameters.

Table 7. Proposed Effluent Lim	nitation at Outfall 002
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Parametera	Mass (lb/day)		Concentration (mg/L)				Monitoring Requirements	
Falameters	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	2/Month	Estimate
Total Suspended Solids	XXX	XXX	XXX	Report	100	XXX	2/Month	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Total Iron	XXX	XXX	XXX	3.5	7.0	XXX	2/Month	Grab
Oil and Grease	XXX	XXX	XXX	15.0	30.0	XXX	2/Month	Grab
Chemical Oxygen Demand	XXX	XXX	XXX	xxx	Report	XXX	1/Quarter	Grab
pH (S.U.)	XXX	XXX	Report	XXX	XXX	Report	2/Month	Grab

Development of Effluent Limitations					
Outfall No.	003	Design Flow (MGD)	0		
Latitude	40º 21' 40"	Longitude	-79º 55' 47"		
Wastewater Description:		Stormwater runoff from the bus maintenance garage roof.			

Technology-Based Limitations

Stormwater Technology Limits

Outfall 003 will be subject to PAG-03 General Stormwater Permit conditions as a minimum requirement because the outfall discharges stormwater associated with industrial activity. The SIC code for the site is 4111 (Transportation & Utilities – Local and Suburban Transit) and the corresponding appendix of the PAG-03 that would apply to the facility is Appendix L (Land Transportation and Petroleum Stations and Terminals). The reporting requirements applicable to stormwater discharges are shown in Table 8 below. Along with the monitoring requirements, sector specific BMPs included in Appendix L of the PAG-03 will also be included in Part C of the Draft Permit.

Table 8. PAG-03 Appendix (L) Monitoring Requirements

Parameter	Max Daily Concentration	Benchmark Value Mg/L
Total Suspended Solids (TSS) (mg/L)	Monitor and Report	100
Oil and Grease (mg/L)	Monitor and Report	30

Water Quality-Based Limitations

Stormwater WQBELs

Water quality analyses are typically performed under low-flow (Q7-10) conditions. Stormwater discharges occur at variable rates and frequencies but not however during Q7-10 conditions. Since the discharge from Outfall 003 is composed entirely of stormwater, a formal water quality analysis cannot be accurately conducted. Accordingly, water quality-based effluent limitations based on water quality analyses are not proposed.

Total Maximum Daily Load (TMDL)

The discharges from Outfall 003 are located within the Thompson Run Watershed for which the Department has developed a TMDL. The TMDL was finalized in January 2016 and establishes waste load allocations for the discharge of aluminum and iron within the Thompson Run Watershed. The site's NPDES permit (PA0093882) is listed in the TMDL document, requiring load allocations. Section 303(d) of the Clean Water Act and the U.S. Environmental Protection Agency's Water Quality Planning and Management Regulations (codified at Title 40 of the Code of Federal Regulations Part 130) require states to develop a TMDL for impaired water bodies. A TMDL establishes the amount of a pollutant that a water body can assimilate without exceeding the water quality criteria for that pollutant. TMDLs provide the scientific basis for a state to establish water quality-based controls to reduce pollution from both point and non-point sources in order to restore and maintain the quality of the state's water resources (USEPA 1991a). Stream reaches within the Thompson Run Watershed are included in the state's Section 303(d) list because of various impairments, including metals, pH and sediment. Stream data is then used to calculate minimum pollutant reductions that are necessary to attain water quality criteria levels. Target concentrations published in the TMDL were based on established water quality criteria of 0.750 mg/L total recoverable aluminum and 1.5 mg/L total recoverable iron based on a 30-day average. The reduction needed to meet the minimum water quality standards is then divided between each known point and non-point pollutant source in the form of a watershed allocation. TMDLs prescribe allocations that minimally achieve water quality criteria (i.e., 100 percent use of a stream's assimilative capacity). Based on the DMR data, Iron and Aluminum are not pollutants of concern and do not contribute to the impairment of the Watershed. Therefore, TMDL load allocations and concentration-based limitations for Iron and Aluminum will not be imposed but monitoring for total Iron and total aluminum will be imposed.

Anti-Backsliding

The limitations in the site's current permit can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(I) and are displayed in Table 9 below. The Total Suspended Solids and Oil and Grease monitoring were previously imposed as stormwater monitoring requirements. The Total Iron and the total Aluminum monitoring requirements were previously imposed due to the discharging to a stream with Total Maximum Daily Loads (TMDL). Monitoring for Chemical Oxygen Demand COD was previously imposed because the parameter was pollutant of concern.

Paramotors	Mass (Ib/day)		Concentration (mg/L)				Monitoring Requirements	
Farameters	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/Quarter	Estimate
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Chemical Oxygen Demand	xxx	XXX	xxx	xxx	Report	XXX	1/Quarter	Grab
pH (S.U.)	XXX	XXX	Report	XXX	Report	XXX	1/Quarter	Grab

Table 9. Current Effluent Limitation at Outfall 003

Proposed Effluent Limitations and Monitoring Requirements

The proposed effluent monitoring requirements for Outfall 003 are displayed in Table 10 below. The daily maximum reporting requirement for pH has been replaced with an instantaneous maximum reporting requirement to be consistent with current permitting practices.

A Part C condition is included in the Draft Permit requiring submission of a Corrective Action Plan whenever there are two or more consecutive exceedances of the stormwater benchmark values, which are also included in the Part C condition. These values are not effluent limitations, an exceedance of the benchmark value is not a violation. As describe above, if there are two or more exceedances of the benchmark values, a Corrective Action Plan must be developed and submitted to the Department to evaluate site stormwater controls and BMPs. Benchmark monitoring is a feedback tool, along with routine inspections and visual assessments, for assessing the effectiveness of stormwater controls and BMPs. An exceedance of the benchmark provides permittees with an indication that the facility's controls may not be sufficiently controlling pollutants in stormwater.

Table 10. Proposed Effluent Limitation at Outfall 003

Parametero	Mass (Ib/day)		Concentration (mg/L)				Monitoring Requirements	
Parameters	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/Quarter	Estimate
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Chemical Oxygen Demand	ХХХ	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
pH (S.U.)	XXX	XXX	Report	XXX	XXX	Report	1/Quarter	Grab

Development of Effluent Limitations

Outfall No.	004	Design Flow (MGD)	0
Latitude	40º 21' 40"	Longitude	-79º 55' 45.17"
Wastewater D	Description:	Stormwater runoff from the lower employee parking lot.	

Technology-Based Limitations

Stormwater Technology Limits

Outfall 004 will be subject to PAG-03 General Stormwater Permit conditions as a minimum requirement because the outfall discharges stormwater associated with industrial activity. The SIC code for the site is 4111 (Transportation & Utilities – Local and Suburban Transit) and the corresponding appendix of the PAG-03 that would apply to the facility is Appendix L (Land Transportation and Petroleum Stations and Terminals). The reporting requirements applicable to stormwater discharges are shown in Table 11 below. Along with the monitoring requirements, sector specific BMPs included in Appendix L of the PAG-03 will also be included in Part C of the Draft Permit.

Table 11. PAG-03 Appendix (L) Monitoring Requirements

Parameter	Max Daily Concentration	Benchmark Value Mg/L
Total Suspended Solids (TSS) (mg/L)	Monitor and Report	100
Oil and Grease (mg/L)	Monitor and Report	30

Water Quality-Based Limitations

Stormwater WQBELs

Water quality analyses are typically performed under low-flow (Q7-10) conditions. Stormwater discharges occur at variable rates and frequencies but not however during Q7-10 conditions. Since the discharge from Outfall 004 is composed entirely of stormwater, a formal water quality analysis cannot be accurately conducted. Accordingly, water quality-based effluent limitations based on water quality analyses are not proposed.

Total Maximum Daily Load (TMDL)

The discharges from Outfall 004 are located within the Thompson Run Watershed for which the Department has developed a TMDL. The TMDL was finalized in January 2016 and establishes waste load allocations for the discharge of aluminum and iron within the Thompson Run Watershed. The site's NPDES permit (PA0093882) is listed in the TMDL document. requiring load allocations. Section 303(d) of the Clean Water Act and the U.S. Environmental Protection Agency's Water Quality Planning and Management Regulations (codified at Title 40 of the Code of Federal Regulations Part 130) require states to develop a TMDL for impaired water bodies. A TMDL establishes the amount of a pollutant that a water body can assimilate without exceeding the water quality criteria for that pollutant. TMDLs provide the scientific basis for a state to establish water quality-based controls to reduce pollution from both point and non-point sources in order to restore and maintain the quality of the state's water resources (USEPA 1991a). Stream reaches within the Thompson Run Watershed are included in the state's Section 303(d) list because of various impairments, including metals, pH and sediment. Stream data is then used to calculate minimum pollutant reductions that are necessary to attain water quality criteria levels. Target concentrations published in the TMDL were based on established water quality criteria of 0.750 mg/L total recoverable aluminum and 1.5 mg/L total recoverable iron based on a 30-day average. The reduction needed to meet the minimum water quality standards is then divided between each known point and non-point pollutant source in the form of a watershed allocation. TMDLs prescribe allocations that minimally achieve water quality criteria (i.e., 100 percent use of a stream's assimilative capacity). Calculations used in the development of water quality based effluent limitations are provided below:

Aluminum: The specific water quality criterion for aluminum is expressed as an acute or maximum daily in 25 Pa. Code Chapter 93. Discharges of aluminum may only be authorized to the extent that they will not cause or contribute to any violation of the water quality standards. Therefore, the water quality criterion for aluminum (0.75 mg/L) is imposed as a

maximum daily effluent limit (MDL). Whenever the most stringent criterion is selected for the MDL, the Department should also impose an average monthly limit (AML) and instantaneous maximum limit (IMAX) if applicable. The imposition of an AML that is more stringent than the MDL is typically not appropriate because the water quality concerns have already been fully addressed by setting the MDL equal to the most stringent applicable criterion. Therefore, where the MDL is set at the value of the most stringent applicable criterion, the AML should be set equal to the MDL. Accordingly, TMDL aluminum limits are proposed for Outfall 004. The proposed aluminum limits are shown in Table 12.

Table 12. TMDL Limits for Outfall 004

	Maximum Departed Discharge	TMD			
Parameter	Concentrations Outfall 004	Average Monthly	Daily Maximum	Units	
Aluminum, total	4.89	0.75	0.75	mg/L	

Based on DMR data, Aluminum is a pollutant of concern because the discharge concentrations have exceeded the instream criteria and TMDL limitations, therefore adding to the stream impairment, see Table 13. The TMDL limitation will be imposed. An average monthly limit of 0.75 mg/L and a daily maximum limit of 0.75 mg/L will be imposed for Aluminum. However, based on the DMR data iron is not a pollutant of concern and does not contribute to the impairment of the Watershed. Therefore, TMDL load allocations and concentration-based limitations for iron will not be imposed but monitoring for Total Iron will remain in the permit.

Table 13. DMR data for Outfall 004

DMR Received Date	Daily Maximum Total Aluminum	Daily Maximum Total Suspended Solids
04/24/2018	2.58	37.0
07/23/2018	4.89	35.0
10/26/2018	1.83	33.0
01/23/2019	0.626	30.0
04/25/2019	3.97	116.0
06/28/2019	3.3	42.0
08/26/2019	4.38	170.0
11/19/2019	0.966	49.0
02/20/2020	0.947	23.8
06/25/2020	1.28	87.0
08/21/2020	2.25	57.0
12/21/2020	0.324	28.0
03/24/2021	1.21	50.0
07/01/2021	0.918	76.0
09/14/2021	0.586	42.0
01/25/2022	0.684	34.0
04/26/2022	1.89	334.0
06/27/2022	1.41	100.0
08/24/2022	0.279	10.0

At this time the permittee may not be able to achieve the new TMDL water quality based effluent limitations for Total Aluminum upon permit issuance, therefore the Department will grant a compliance schedule for the permittee to achieve the final effluent limitations. The permittee will receive interim monitoring requirements for the first three years of the permit, after which the final water quality limits will become effective.

Anti-Backsliding

The limitations and monitoring requirements in the site's current permit can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(I) and are displayed in Table 14 below. The Total Suspended Solids and Oil and Grease monitoring were previously imposed as stormwater monitoring requirements. The Total Iron and the total Aluminum monitoring requirements were previously imposed due to the discharging to a stream with Total Maximum Daily Loads (TMDL). Monitoring for Chemical Oxygen Demand COD was previously imposed because the parameter was pollutant of concern.

Parameters	Mass (Ib/day)			Concentr	Monitoring Requirements			
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/Quarter	Estimate
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Chemical Oxygen Demand	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
pH (S.U.)	XXX	XXX	Report	XXX	Report	XXX	1/Quarter	Grab

Table 14. Current Effluent Limitation at Outfall 004

Proposed Effluent Limitations and Monitoring Requirements

The proposed interim effluent monitoring requirements and proposed final effluent limitations and monitoring requirements for Outfall 004 are displayed in Tables 15 and 16 below, they are the most stringent values from the above effluent limitation development. The daily maximum reporting requirement for pH has been replaced with an instantaneous maximum reporting requirement to be consistent with current permitting practices.

A Part C condition is included in the Draft Permit requiring submission of a Corrective Action Plan whenever there are two or more consecutive exceedances of the stormwater benchmark values, which are also included in the Part C condition. These values are not effluent limitations, an exceedance of the benchmark value is not a violation. As describe above, if there are two or more exceedances of the benchmark values, a Corrective Action Plan must be developed and submitted to the Department to evaluate site stormwater controls and BMPs. Benchmark monitoring is a feedback tool, along with routine inspections and visual assessments, for assessing the effectiveness of stormwater controls and BMPs. An exceedance of the benchmark provides permittees with an indication that the facility's controls may not be sufficiently controlling pollutants in stormwater.

Effluent Limitation Compliance Schedule

Whenever the Department proposes the imposition of water quality based effluent limitations on existing sources, the NPDES permit may include a schedule of compliance to achieve the WQBELs. Any compliance schedule contained in an NPDES permit must be an "enforceable sequence of actions or operations leading to compliance with the water quality-based effluent limitations ("WQBELs"). In accordance with 40 CFR 122.47(a)(3) and PA Code, Chapter 92a.51, compliance schedules that are longer than one year in duration must set forth interim requirements and dates for their achievement. In order to grant a compliance schedule in an NPDES permit, the permitting authority has to make a reasonable finding, adequately supported by the administrative record and described in the fact sheet, that a compliance schedule is "appropriate" and that compliance with the final WQBEL is required "as soon as possible".

In this case, Port Authority of Allegheny County may be unable to meet the proposed effluent limits at Outfall 004 for aluminum based on the current lack of installed treatment technologies and the known discharge concentrations of this

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pollutant. Monitoring for Aluminum will be imposed for the first three years of coverage. After three years following the permit effective date, the final permit limits will take effect.

The compliance schedule also includes an additional requirement to update the Stormwater Pollution Prevention Plan SWPPP for Outfall 004. The SWPPP that is currently employed is not adequate as indicated by the multiple exceedances of the benchmark values at Outfall 004. The SWPPP would need to be updated to include housekeeping practices, best management practices and treatment technologies that may be installed or implemented to achieve the final effluent limits and other stormwater benchmark values at Outfall 004.

Table 15. Proposed Interim Effluent Limitation at Outfall 004

Parameters	Mass (Ib/day)			Concentr	Monitoring Requirements			
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/Quarter	Estimate
Total Suspended Solids	XXX	XXX	XXX	XXX	100	XXX	1/Quarter	Grab
Total Aluminum	XXX	XXX	XXX	Report	Report	XXX	2/Month	Grab
Total Iron	XXX	XXX	XXX	Report	Report	XXX	1/Quarter	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Chemical Oxygen Demand	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
pH (S.U.)	XXX	XXX	Report	XXX	XXX	Report	1/Quarter	Grab

Table 16. Proposed Final Effluent Limitation at Outfall 004

Parameters	Mass (Ib/day)			Concentr	Monitoring Requirements			
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/Quarter	Estimate
Total Suspended Solids	XXX	XXX	XXX	XXX	100	XXX	1/Quarter	Grab
Total Aluminum	XXX	XXX	XXX	0.75	0.75	XXX	2/Month	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/Quarter	Grab
Chemical Oxygen Demand	ххх	XXX	XXX	xxx	Report	XXX	1/Quarter	Grab
pH (S.U.)	XXX	XXX	Report	XXX	XXX	Report	1/Quarter	Grab

Tools and References Used to Develop Permit
WOM for Windows Model (see Attachment)
Toxics Management Spreadsbeet (see Attachment)
TBC Model Spreadshoet (see Attachment)
Temperature Medel Spreadsheet (see Attachment)
Weter Quelity Toyles Management Strategy, 264,0400,002, 4/06
Technical Cuidence for the Development and Specification of Effluent Limitations, 202,0400,004, 40/07
Pelieu fer Dermitting Curfage Mater Diversione, 200,0000,002, 2/00
Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
Lechnology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
12/97.
Pennsylvania CSO Policy, 385-2000-011, 9/08.
Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
Implementation Guidance Design Conditions, 391-2000-006, 9/97.
Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 10/97.
Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 391-2000-019, 10/97.
Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 3/99.
Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 391-2000-022, 3/1999.
Design Stream Flows, 391-2000-023, 9/98.
Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
SOP:
Other: