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New Jersey Agricultural Experiment Station





Hamilton Township (Mercer County) ILLICIT DISCHARGE INVESTIGATION 2023

Developed by the Rutgers Cooperative Extension Water Resources Program Funded by Hamilton Township, Mercer County, New Jersey

October 30, 2023

Acknowledgements

The Hamilton Township (Mercer County) Illicit Discharge Investigation 2023 has been produced by the **Rutgers Cooperative Extension (RCE) Water Resources Program**.

Funding for this project was generously provided by the **Township of Hamilton**, **Mercer County**, **New Jersey** and in part by the **New Jersey Agricultural Experiment Station** through the United States Department of Agriculture.

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Introduction

The Rutgers Cooperative Extension (RCE) Water Resources Program collected samples from eight outfall sites in Hamilton Township, Mercer County, New Jersey in August 2023 that exhibited dry weather flow. These eight outfall sites were part of a larger group of eleven outfalls that were identified as being potential illicit discharges based on visual inspections conducted during the regular outfall inspections of Region 2 (Pond Run North) during the summer of 2023 (Figure 1) as well as two outfalls of Region 4 (Back Creek, Crosswicks Creek, and Doctors Creek) which were identified as being potential illicit discharges during the summer of 2019 (Figure 2). These outfalls all had dry weather flow or other potential signs of illicit discharges. Data from the initial inspections are provided in Attachment 1.

Sampling

The thirteen outfalls were revisited and reinspected for evidence of illicit discharge on August 22, 2023. Eight of these outfalls were observed to be flowing, and the remaining five were no longer flowing. These five outfalls showed no other evidence of illicit discharge. Thus, it was assumed these outfalls were originally flowing due to groundwater sources, but special attention should be given to these outfalls at their next inspection. The standard forms required by the New Jersey Department of Environmental Protection (NJDEP) have been completed for all thirteen outfalls (See Attachment 2).

For the eight outfalls found to be flowing on August 22, grab samples were collected by the RCE Water Resources Program staff and delivered to Pace Analytical Labs in Ewing, NJ for analysis of methylene blue active substances (MBAS, surfactants), ammonia as N, potassium, and fluoride to determine if the sites were characteristic of an illicit discharge. The temperature and approximate flow rate of the water directly leaving the outfall was also measured. The results of these analyses as well as the calculated ammonia to potassium ratio, can be found in Table 1. The following analytical methods were used by the lab: MBAS (SM 5540 C-11), ammonia as N (EPA 350.1), potassium (EPA 300.0 Rev. 2.1), and fluoride (EPA 200.7 Rev 4.4).

During initial outfall inspections, two new outfalls were identified and labeled as PN121 and PN127 for sampling. All outfalls are undergoing a renumbering as the database is audited

during each new round of inspections. For outfalls 26 and 29, they have not yet been assigned a new outfall ID, so their Sample ID will remain as their old outfall ID until they are reassigned during the inspections for Region 4.

Hamilton Outfall Region 2: Potential Illicit Discharges

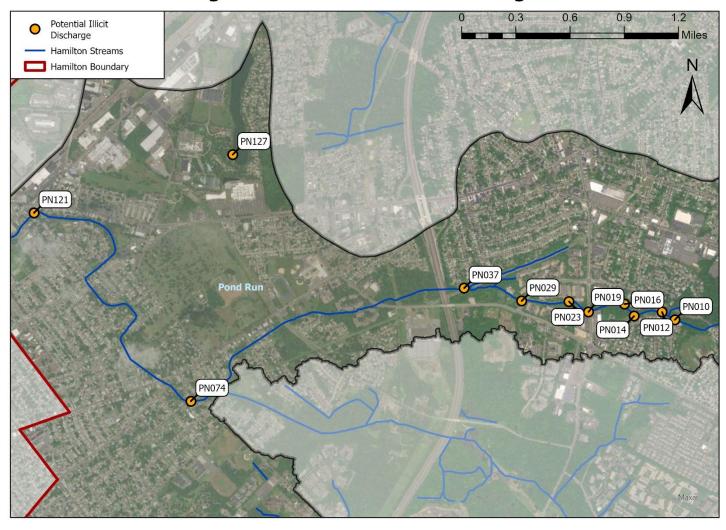


Figure 1: Hamilton Township outfall sampling sites Region 2, August 2023

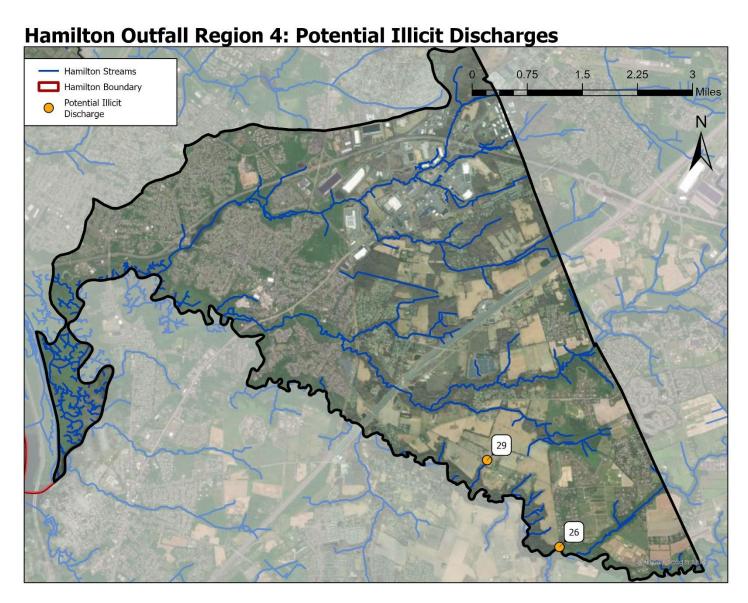


Figure 2: Hamilton Township outfall sampling sites Region 4, August 2023

Table 1: Results from outfall sampling

New Outfall ID	Old Outfall ID	Sample Date	Time Sampled	Temperature (°F)	Surfactants (MBAS) (mg/L)	Ammonia as N (mg/L)	Potassium (mg/L)	Ratio NH3:K	Fluoride	Estimated Flow Rate (GPM)	Illicit Discharge (Y/N)
PN074	F0305	8/22/2023	10:00 AM	78.2	ND	ND	1.50	0.00	0.23	15	Υ
PN121	N/A	8/22/2023	10:27 AM	71.9	ND	ND	5.47	0.00	0.53	30	N
PN037	D0301	8/22/2023	11:00 AM	83.1	ND	ND	1.62	0.00	0.23	2.6	Υ
PN014	D0319	8/22/2023	12:25 PM	67.2	ND	ND	3.99	0.00	ND	0.3	N
PN019	D0311	8/22/2023	1:40 PM	74.6	0.100	0.822	9.47	0.09	0.33	0.1	Υ
PN029	D0321	8/22/2023	2:10 PM	71.4	ND	ND	4.91	0.00	0.41	0.3	N
TBD	29	8/22/2023	2:55 PM	71.1	0.107	ND	2.31	0.00	ND	2.5	Υ
TBD	26	8/22/2023	3:10 PM	70.1	ND	ND	3.06	0.00	ND	1	N
PN010	C0301	Not Sa	mpled				N/A				
PN012	C0304	Not Sa	mpled				N/A				
PN016	D0317	Not Sa	mpled	N/A						·	
PN023	D0326	Not Sa	mpled	N/A							
PN127	N/A	Not Sa	mpled				N/A				

ND = not detected

MBAS = methylene blue active substances

Results

The Illicit Discharge Identification Flow Chart provided by NJDEP in chapter 3.6 of the Municipal Separate Storm Sewer System Tier A Guidance Document (Figure 3) was used to determine the presence of an illicit discharge. As seen from the results in Table 1, two of the samples, PN019 and 29, had detectible surfactant concentrations of 0.100 and 0.107, respectively. Both PN019 and 29 are suspected to have illicit discharges from either sanitary wastewater or washwater.

If surfactants are measured, the ratio of ammonia as N to potassium can be used to distinguish a sanitary wastewater source from a sanitary washwater source. The ammonia as N to potassium ratio of sanitary wastewater is characteristically greater than 1.0. Dry weather flows with an ammonia as N to potassium ratio less than 1.0 are likely to be from a sanitary washwater source (NJDEP, 2018). If potassium was reported as not detected (ND), half the reporting limit was used to calculate the ratio. In the case of outfalls PN019 and 29, both exhibited ratios less than 1.0. Therefore, the source of the suspected illicit discharge for both of these outfalls is likely sanitary washwater. Outfall PN019 has several commercial locations adjacent that can be investigated for potential illicit discharges. Outfall 29 is in a rural area, so the source is likely from a nearby residential or agricultural property.

For those discharges where surfactants are not detected, the next part of the investigation is to determine if the temperature of the discharge is above 70 °F. Discharges where surfactants are not detected and with temperatures greater than 70 °F are suspected to be from cooling water sources. Due to the low volume of discharge observed at several of the outfalls, temperatures observed at slightly above 70 °F are more likely due to the influence of the ambient air temperature rather than cooling water. The average ambient air temperature on the day of sampling, August 22, 2023, was reported as 71.83 °F at the Trenton Mercer Airport in Ewing, NJ. However, PN074 and PN037 exhibited temperatures of 78.2 °F and 83.1 °F, respectively. These temperatures are relatively high when compared to the average ambient air temperature of 71.83 °F. These temperatures are indicative of potential illicit discharges of cooling water from both PN074 and PN037.

Outfall PN074's drainage area is primarily residential with only a few small apartment buildings and schools that could be the sources of cooling water. Outfall PN037's drainage area also is primarily residential with only a few smaller businesses that are unlikely sources of cooling water.

Most industrial discharges can be identified by high potassium concentrations and/or high ammonia as N concentrations. The benchmark concentration for potassium to identify industrial discharges is ≥ 20 mg/L, and the benchmark concentration for ammonia as N to identify industrial discharges is ≥ 50 mg/L (Brown, Caraco, and Pitt, 2004). All potassium and ammonia as N concentrations reported in Table 1 are well below these benchmark concentrations, illustrating that the dry weather flows observed are most likely not from an industrial source.

The data indicate that there is reason to suspect illicit discharges at four of the outfalls: PN019 and 29 for suspected illicit discharge of sanitary washwater and PN074 and PN037 for suspected illicit discharge of cooling water. Further investigation to find the sources of the suspected illicit discharges is required.

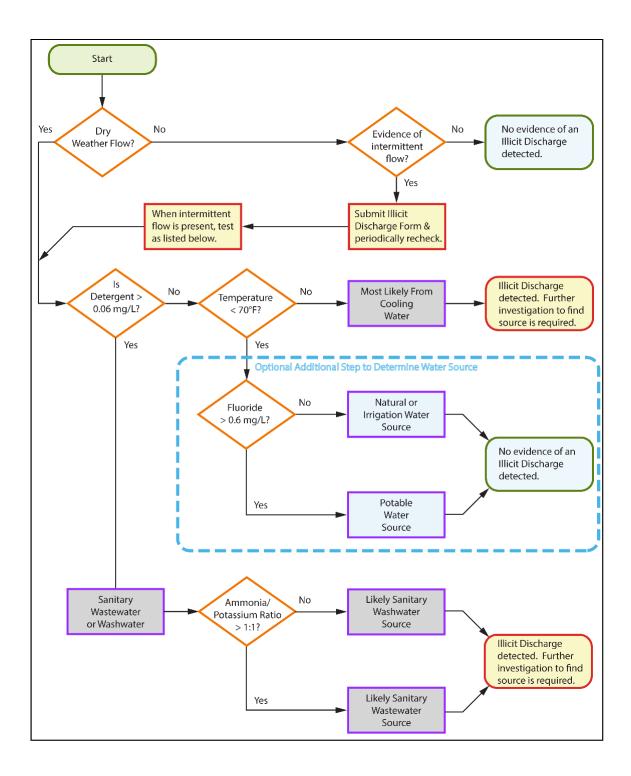


Figure 3: Illicit discharge identification flow chart, NJDEP 2018

References

Brown, E., Caraco, D., Pitt, R. 2004. Illicit Discharge Detection and Elimination: A Guidance Manual: Chapter 12 Indicator Monitoring, pp. 134-135.

New Jersey Department of Environmental Protection (NJDEP). 2018. Tier A Municipal Stormwater Guidance Document. Chapter 3.6: MS4 Outfall Pipe Mapping and Illicit Discharge and Scour Detection Control, pp. 6-12.

Weather Underground, Trenton Mercer Airport Station, 40.23 °N, 74.68 °W, August 22, 2023. https://www.wunderground.com/history/daily/us/nj/ewing/KTTN/date/2023-8-22



Suspected Illicit Discharge

Outfall ID	OLD ID	Subwatershed	Date of Inspection	Date of Last Rain	Last Rain Amount [in]	Is the pipe fully or partially submerged?	Are there known non- stormwater discharges?	Rainfall Last 72hrs?	Dry Weather Flow?	Illicit Discharge Suspected?
PN010	C0301	Pond Run	6/6/2023	6/2/2023	0.04	N	N	N	Υ	Y
PN012	C0304	Pond Run	6/6/2023	6/2/2023	0.04	N	N	N	Υ	Υ
PN014	D0319	Pond Run	6/6/2023	6/2/2023	0.04	N	N	N	Υ	Υ
PN016	D0317	Pond Run	6/6/2023	6/2/2023	0.04	Y (Partially Submerged)	N	N	Υ	Υ
PN019	D0311	Pond Run	6/9/2023	6/2/2023	0.04	N	N	N	Υ	Υ
PN023	D0326	Pond Run	6/9/2023	6/2/2023	0.04	N	N	N	Υ	Y
PN029	D0321	Pond Run	6/6/2023	6/2/2023	0.04	N	N	N	Υ	Υ
PN037	D0301	Pond Run	6/6/2023	6/2/2023	0.04	N	N	N	Υ	Y
PN074	F0305	Pond Run	6/9/2023	6/2/2023	0.04	N	N	N	Υ	Υ
PN121	<null></null>	Pond Run	7/25/2023	7/21/2023	0.21	N	N	N	Υ	Υ
PN127	<null></null>	Pond Run	6/21/2023	6/16/2023	0.53	N	N	N	Υ	Υ
PN004	<null></null>	Pond Run	6/6/2023	6/2/2023	0.04	N	N	N	N	Unsure
PN130	E0209	Pond Run	6/9/2023	6/2/2023	0.04	N	N	N	N	Unsure

Suspected Illicit Discharge

Outfall ID	OLD ID	Odor	Color	Turbidity	Floatables	Deposits or Stains	Adjacent Vegetation (compared to other areas)	Notes	Overall Priority
PN010	C0301	None	Clear	Clear	None	Excessive sediments	normal	cracking underneath outfall	3 - Medium
PN012	C0304	None	Clear	Clear	Other	None	normal	Welts of grass	2 - Low
PN014	D0319	None	Clear	Clear	None	Other	normal	cracks and minor erosion	3 - Medium
PN016	D0317	None	Clear	Cloudy	Petroleum	None	normal	Partially submerged pipe, very slow moving water bordering on stagnant.	3 - Medium
PN019	D0311	None	Clear	Clear	None	Excessive sediments	normal	the discharge is orange-brown (looks to be iron deposits or algal growth), Other outfalls under bridge are strangely blocked with concrete/boards so no longer serve as outfalls	2 - Low
PN023	D0326	None	Brown	Cloudy	None	Other	normal	the discharge is an orange-brown color and also floating on top of water	2 - Low
PN029	D0321	None	Brown	Clear	None	None	normal	Backed up with sediment debris	3 - Medium
PN037	D0301	None	Clear	Clear	None	No Illicit Discharge	normal	<null></null>	2 - Low
PN074	F0305	None	Clear	Clear	None	None	normal	Good, just flowing during dry weather	2 - Low
PN121	<null></null>	None	Clear	Clear	None	None	normal	Fenced off, has dry weather flow , estimated measurement 36"	3 - Medium
PN127	<null></null>	None	Clear	Clear	None	None	Inormai	pond that serves as retention basin at grounds for sculpture draining to outfall	3 - Medium
PN004	<null></null>	Sewage	<null></null>	<null></null>	Suds	None	Inormal	Deep pool of standing water adjacent outfall from erosion	3 - Medium
PN130	E0209	None	<null></null>	<null></null>	<null></null>	White crystalline	normal	white/grey staining	2 - Low





Outfall ID: PN074 (6/9/2023)

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the <u>Tier A Guidance</u>

<u>Document</u>.

If a dry weather flow or other evidence of an intermittent illicit discharge is observed, this form shall be used to document the illicit discharge investigation in accordance with the current MS4 NJPDES Permit. This completed form shall be uploaded with the permittee's Annual Report and Certification and be kept with the permittee's SPPP as per the recordkeeping requirements of the permit. Initial illicit connection inspections must be performed during dry weather, which is at least 72 hours after the end of the previous precipitation or snowmelt event.

It is required to attach photos of the investigation to this form.

SECTION 1: PERMITTEE INFORMATION							
MS4 Permittee: Hamilton Township	S4 Permittee: Hamilton Township NJPDES #: NJG0 150258						
SECTION 2: OUTFALL SUMMARY INFORM	IATION						
*If this outfall is newly identi	fied, be sure to add it to your electron	ic outfall p	ipe map.'	k			
Outfall ID: PN074 (formerly F0305)	Outfall Location Description: Camp Ave						
Municipality: Hamilton Township	County:	Mercer					
Receiving Waterbody: Pond Run							
Describe the type of conveyance(s) that d corrugated pipe, concrete channel, etc.):		_					
If the ultimate discharge into the receiving partially submerged?	-		=	ipe fully or * ALWAYS*			
*If 'Sometimes' or 'Always,' describe subr	•	tion:					
If the ultimate discharge into the receiving distance between the end of the last enclosift.): N/A	-	=					
Do any other NJPDES permittees discharg	e through this MS4 outfall?	☐ YES*	■ NO	□ UNKNOWN			
*If 'YES', list Permittee Name(s), NJPDES #	t(s), and Location of Connection:						
*If 'VFS' nlo	ease contact your MS4 Case Manag	ner *					

SECTION 3: OUT	FALL INSPECTION						
Date of current inspection: $\frac{8}{22}$ / $\frac{2023}{2023}$							
Latest precipitat	Latest precipitation/snowmelt event: $\frac{8}{2023}$ Amount of Precipitation (in.): $\frac{0.29}{2029}$						
Date dry weathe	er flow or other evidence of an intermittent illicit discharge was first discovered: $\frac{6}{2} = \frac{9}{2023}$						
	reprevious inspection(s) and describe the actions taken, if applicable:						
SECTION 4: PHY	SICAL OBSERVATIONS						
-	either partially or fully submerged, dry weather flow observations must be made at the next ream point (e.g. manhole) above the influence of the receiving surface waterbody.						
If applicable: Mo	anhole ID: N/A Approximate distance upstream from outfall (ft.): N/A						
•	nall use the table below to describe 1) the observed dry weather flow and/or 2) when there f intermittent illicit discharges present.						
	(Potential illicit discharge sources are listed in parentheses.)						
Odor	 ■ None □ Sewage (stale/septic sanitary wastewater) □ Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) □ Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) □ Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) 						
	☐ Other:						
Color	 □ Clear □ Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) □ Gray (dairies, sewage) □ Yellow (chemical plants, textile and tanning plants) □ Red (meat packers) □ Other: 						
Turbidity	☐ Clear ☐ Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) ☐ Opaque (food processors, lumber mills, metal works, pigment plants)						
Floatable Matter (Does not include litter)	Floatables of industrial origin may include animal fats, spoiled foods, solvents, sawdust, foams, packing materials, or fuel. Floatables in sanitary wastewater include fecal matter, toilet paper, sanitary napkins, and condoms. None Sewage (toilet paper, etc.) Suds Petroleum (oil sheen) Other:						

Deposits and	Coatings,	residues or fragments of material may be indicators of a potential intermittent							
Stains within	_	nwater discharge							
outfall	■ None								
	☐ Grayish	n-Black (leather tanneries)							
	☐ White o	☐ White crystalline powder (Nitrogenous fertilizers)							
	☐ Excessi	☐ Excessive sediments (construction sites)							
	☐ Oily res	Oily residues (petroleum refineries, storage facilities, vehicle service areas)							
	☐ Other:_								
Vegetation	-	compared to surrounding Riparian bank and/or stream vegetation							
	■ Norma								
		ve growth and/or algal presence (Food processing plants)							
	☐ Inhibite	ed Growth (Industrial operation effluent, CAFOs)							
of the water of vegetation surr	or no depos counding ou	ns have been conducted and it was determined there was no odor, no discoloration its and stains left on the outfall, turbidity was clear, no floatable matter, and the offall appears normal, then the dry weather discharge is likely from a groundwater 'Field Monitoring" section below must still be completed for verification.							
	_	analyses in Sections 5 & 6, the source may be traced back upstream in the storm location by various methods, such as opening manholes, using a camera and/or performing dye tests or smoke tests.*							
SECTION 5: FIEL	D MONITO	RING							
Field c	alibrate ins	truments in accordance with manufacturer's instructions prior to testing.							
Estimated Dry Flow Ra		The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 6 GPM							
Deterge Examples include		Potential discharge types include sewage, washwater, industrial or commercial liquid waste							
and methylene k	olue active	Measurement: MD-NOT DETECTED mg/L							
Temperature weather dis	-	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: 78.2 °F							
Pro	ceed to Sec	tion 6 in accordance with the Guidance Document recommendations.							
		FLOW ANALYSIS - WATER QUALITY							
* Based on the potential discharge types determined in the 'Physical Observation' and 'Field Monitoring' sections, <u>further testing must be conducted</u> using the appropriate subset of parameters below. The following parameters are recommended by the EPA for specific types of discharges as noted in the table below. For more information, refer to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance document (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf).									
Outfall	ition of you	r measurements (e.g. outfall, manhole number, etc.):							

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	ND- NOT DETECTED mg/L
Potassium	Sewage, industrial or commercial liquid waste	1.50 mg/L
Boron	>0.35 mg/L likely indicates sewage or washwater	mg/L
Chlorine	Industrial or commercial liquid waste	mg/L
Conductivity	Sewage, washwater, and industrial or commercial liquid waste	S/m
E. coli	>12,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
(FW & PL waters)**		
Enterococci	>5,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
(SC & SE1 waters)**		
Fecal Coliform	Sewage	Count/100 mL
(SE2 & SE3 waters)**		
Fluoride	Distinguishes potable water from natural or irrigation water	0.23 mg/L
pH of Dry Weather Discharge	Washwater	SU

^{**}The abbreviations FW, PL, SC, SE 1, SE2, and SE3 refer to the surface water quality classification of the receiving surface waterbody where the outfall discharges, as defined in N.J.A.C. 7:9B. FW=Freshwater, PL=Pinelands, SC=Saline Coastal, SE=Saline Estuary. Map coverage of these classifications is available on NJ-GeoWeb (https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d) using the layer under 'Water' of 'Surface Water Quality Classification.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source o	f the dry weathe ninated.	r flow is	found, and any illicit discharge is
Based on the latest results from the investigation, in	cluding the resul	lts in Sec	ctions 4, 5 and 6, is/was this dry
weather flow from an illicit connection?	■ YES	□ NO	☐ INVESTIGATION IS ONGOING
If the investigation has been completed, what was the source of the dry weather flow is likely cooling to the control of the dry weather flow is likely cooling to the control of the dry weather flow is likely cooling to the control of the dry weather flow is likely cooling to the control of the dry weather flow is likely cooling to the control of the dry weather flow is likely cooling to the control of the dry weather flow is likely cooling to th		dry wea	ther flow or illicit connection?

Describe the investigation, including the	e methods that we	re/will be used to identify the suspec	ted source of
the illegal discharge, or conclude there	was no illicit disch	arge, along with the timeline of the st	eps of the
investigation. Attach additional pages i	f necessary.		
Surfactants, potassium, ammonia, a	nd fluoride were	all tested on 8/22/2023. None of th	e other
parameters were indicative of other			water is
unseasonably high, which is indicati	ve of cooling wat	er.	
SECTION 8: ILLICIT DISCHARGE ELIMINA	ATION		
If it was an illicit discharge, has the soul	rce been eliminate	d?	□ YES ■ NO
Describe the plan of action that was/wi	ll he followed to el	liminate the illicit connection. This pla	an should
detail who is/was responsible for the di		·	
took/will take, and how removal was/w	•		.0.18 10
The town of Hamilton Township will			ntion to
address the identified illicit discharg	-	or processing man is also investiga	
SECTION 9: INSPECTOR INFORMATION			
Inspector's Name: CAITLIN GILVEY			
Title: PROGRAM ASSOCIATE	Affiliation:	RCE WATER RESOURCES PROGRAM	
Signature: Caitlin Gilvey	Digitally signed by Caitlin Gilvey Date: 2023.10.26 15:09:37 -04'00'	Date: 10/26/2023	



Outfall ID: PN121 (7/25/2023)

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the <u>Tier A Guidance</u>

<u>Document</u>.

If a dry weather flow or other evidence of an intermittent illicit discharge is observed, this form shall be used to document the illicit discharge investigation in accordance with the current MS4 NJPDES Permit. This completed form shall be uploaded with the permittee's Annual Report and Certification and be kept with the permittee's SPPP as per the recordkeeping requirements of the permit. Initial illicit connection inspections must be performed during dry weather, which is at least 72 hours after the end of the previous precipitation or snowmelt event.

It is required to attach photos of the investigation to this form.

SECTION 1: PERMITTEE INFORMATION						
MS4 Permittee: Hamilton Township NJPDES #: NJG0 150258						
SECTION 2: OUTFALL SUMMARY INFORM	ATION					
If this outfall is newly identij	ied, be sure to add it to your electronic outfall pipe map.					
Outfall ID: PN121	Outfall Location Description: Roberts Ave between N Johnston Ave and Rt 614					
Municipality: Hamilton Township	County: Mercer					
Receiving Waterbody:						
**	elivers the stormwater to the receiving waterbody (concrete or					
If the ultimate discharge into the receiving partially submerged?	water is from an enclosed pipe , is the end of the pipe fully or NEVER SOMETIMES* ALWAYS*					
*If 'Sometimes' or 'Always,' describe subn	·					
_	g water is not from an enclosed pipe , what is the approximate osed stormwater conveyance pipe to the receiving waterbody					
Do any other NJPDES permittees discharge	e through this MS4 outfall? ☐ YES* ■ NO ☐ UNKNOWN					
*If 'YES', list Permittee Name(s), NJPDES #_N/A	(s), and Location of Connection:					
If 'VEC' nla	ase contact your MS4 Case Manager.					

SECTION 3: OUT	FALL INSPECTION					
Date of current i	Date of current inspection: $\frac{8}{\sqrt{22}} / \frac{2023}{\sqrt{2023}}$					
Latest precipitat	ion/snowmelt event: $\frac{8}{2023}$ / $\frac{2023}{2023}$ Amount of Precipitation (in.): $\frac{0.29}{2023}$					
Date dry weathe	er flow or other evidence of an intermittent illicit discharge was first discovered: $\frac{7}{25}$					
	of previous inspection(s) and describe the actions taken, if applicable:					
SECTION 4: PHY	SICAL OBSERVATIONS					
-	either partially or fully submerged, dry weather flow observations must be made at the next ream point (e.g. manhole) above the influence of the receiving surface waterbody.					
If applicable: Me	anhole ID: N/A Approximate distance upstream from outfall (ft.): N/A					
•	nall use the table below to describe 1) the observed dry weather flow and/or 2) when there of intermittent illicit discharges present.					
	(Potential illicit discharge sources are listed in parentheses.)					
Odor	 None Sewage (stale/septic sanitary wastewater) Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) 					
	Other:					
Color	 □ Clear □ Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) □ Gray (dairies, sewage) □ Yellow (chemical plants, textile and tanning plants) □ Red (meat packers) □ Other: 					
Turbidity	☐ Clear ☐ Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) ☐ Opaque (food processors, lumber mills, metal works, pigment plants)					
Floatable Matter (Does not include litter)	Floatables of industrial origin may include animal fats, spoiled foods, solvents, sawdust, foams, packing materials, or fuel. Floatables in sanitary wastewater include fecal matter, toilet paper, sanitary napkins, and condoms. None Sewage (toilet paper, etc.) Suds Petroleum (oil sheen) Other:					

Deposits and	Coatings,	residues or fragments of material may be indicators of a potential intermittent	
Stains within	non-stormwater discharge		
outfall	■ None		
	☐ Grayish	n-Black (leather tanneries)	
	☐ White o	crystalline powder (Nitrogenous fertilizers)	
	☐ Excessive sediments (construction sites)		
	☐ Oily res	sidues (petroleum refineries, storage facilities, vehicle service areas)	
	☐ Other:_		
Vegetation	As compa	red to surrounding Riparian bank and/or stream vegetation	
	■ Norma		
	☐ Excessi	ve growth and/or algal presence (Food processing plants)	
	☐ Inhibite	ed Growth (Industrial operation effluent, CAFOs)	
of the water of vegetation surr sourc Prior to cond	or no deposion ounding ou e, but <u>the "</u> ucting the c	its and stains left on the outfall, turbidity was clear, no floatable matter, and the tfall appears normal, then the dry weather discharge is likely from a groundwater (Field Monitoring" section below must still be completed for verification. Inalyses in Sections 5 & 6, the source may be traced back upstream in the storm to location by various methods, such as opening manholes, using a camera and/or performing dye tests or smoke tests.*	
Field c		RING truments in accordance with manufacturer's instructions prior to testing.	
Estimated Dry Weather Flow Rate		The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 30 GPM	
Deterge Examples include		Potential discharge types include sewage, washwater, industrial or commercial liquid waste	
and methylene b	lue active	Measurement: ND- NOT DETECTED mg/L	
Temperature weather dis	=	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: 71.9 °F	
Pro	ceed to Sec	tion 6 in accordance with the Guidance Document recommendations.	
SECTION 6: DRY	WEATHER	FLOW ANALYSIS - WATER QUALITY	
* Based on the potential discharge types determined in the 'Physical Observation' and 'Field Monitoring' sections, <u>further testing must be conducted</u> using the appropriate subset of parameters below. The followin parameters are recommended by the EPA for specific types of discharges as noted in the table below. For more information, refer to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance document (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf).			
Outfall	ition of you	r measurements (e.g. outfall, manhole number, etc.):	

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	ND- NOT DETECTED mg/L
Potassium	Sewage, industrial or commercial liquid waste	5.47 mg/L
Boron	>0.35 mg/L likely indicates sewage or washwater	mg/L
Chlorine	Industrial or commercial liquid waste	mg/L
Conductivity	Sewage, washwater, and industrial or commercial liquid waste	S/m
E. coli	>12,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
(FW & PL waters)**		
Enterococci	>5,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
(SC & SE1 waters)**		
Fecal Coliform	Sewage	Count/100 mL
(SE2 & SE3 waters)**		
Fluoride	Distinguishes potable water from natural or irrigation water	0.53 mg/L
pH of Dry Weather Discharge	Washwater	SU

^{**}The abbreviations FW, PL, SC, SE 1, SE2, and SE3 refer to the surface water quality classification of the receiving surface waterbody where the outfall discharges, as defined in N.J.A.C. 7:9B. FW=Freshwater, PL=Pinelands, SC=Saline Coastal, SE=Saline Estuary. Map coverage of these classifications is available on NJ-GeoWeb (https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d) using the layer under 'Water' of 'Surface Water Quality Classification.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

SECTION 7. IEEECH DISCHARGE HAVESHOATION	
	of the dry weather flow is found, and any illicit discharge is liminated.*
Based on the latest results from the investigation,	including the results in Sections 4, 5 and 6, is/was this dry
weather flow from an illicit connection?	☐ YES ■ NO ☐ INVESTIGATION IS ONGOING
If the investigation has been completed, what was The source was likely natural or irrigation water	the source of the dry weather flow or illicit connection?

Describe the investigation, including the	methods that we	ere/will be used to identify the suspect	ed source of		
the illegal discharge, or conclude there was no illicit discharge, along with the timeline of the steps of the					
investigation. Attach additional pages if	necessary.				
Surfactants, potassium, ammonia, ar	nd fluoride were	all tested on 8/22/2023. None of the	ese		
parameters were indicative of illicit di	scharge source	s, and the temperature of the water	is within a		
reasonable range for the time of year	that sampling v	vas conducted.			
SECTION 8: ILLICIT DISCHARGE ELIMINA	TION				
If it was an illicit discharge, has the sour	ce been eliminate	d? [□ YES □ NO		
Describe the plan of action that was/wil	l he followed to e	liminate the illicit connection. This pla	n should		
detail who is/was responsible for the dis		·			
took/will take, and how removal was/wi	•		-		
toon, in take, and now removal was, in	se commined a				
SECTION 9: INSPECTOR INFORMATION					
Inspector's Name: CAITLIN GILVEY					
Title: PROGRAM ASSOCIATE	Affiliation:	RCE WATER RESOURCES PROGRAM			
Signature: Caitlin Gilvey	Digitally signed by Caitlin Gilvey Date: 2023.10.26 17:10:39 -04'00'	Date: 10/26/2023			



Outfall ID: PN037 (6/6/2023)

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the <u>Tier A Guidance</u>

<u>Document</u>.

If a dry weather flow or other evidence of an intermittent illicit discharge is observed, this form shall be used to document the illicit discharge investigation in accordance with the current MS4 NJPDES Permit. This completed form shall be uploaded with the permittee's Annual Report and Certification and be kept with the permittee's SPPP as per the recordkeeping requirements of the permit. Initial illicit connection inspections must be performed during dry weather, which is at least 72 hours after the end of the previous precipitation or snowmelt event.

It is required to attach photos of the investigation to this form.

SECTION 1: PERMITTEE INFORMATION	
MS4 Permittee: Hamilton Township	NJPDES #: NJG0_150258
SECTION 2: OUTFALL SUMMARY INFORM	ATION
If this outfall is newly identi	ied, be sure to add it to your electronic outfall pipe map.
Outfall ID: PN037 (formerly D0301)	Outfall Location Description: 224 Natrona Avenue
Municipality: Hamilton Township	County: Mercer
Receiving Waterbody: Pond Run	
	elivers the stormwater to the receiving waterbody (concrete or
If the ultimate discharge into the receiving partially submerged? *If 'Sometimes' or 'Always,' describe submerged.	·
If the ultimate discharge into the receiving	g water is not from an enclosed pipe , what is the approximate osed stormwater conveyance pipe to the receiving waterbody
(ft.): N/A	osed stormwater conveyance pipe to the receiving waterbody
Do any other NJPDES permittees discharge	e through this MS4 outfall? ☐ YES* ■ NO ☐ UNKNOWN
*If 'YES', list Permittee Name(s), NJPDES # N/A	(s), and Location of Connection:
If 'YES', ple	ase contact your MS4 Case Manager.

SECTION 3: OUT	FALL INSPECTION		
Date of current inspection: $\frac{8}{\sqrt{22}} / \frac{2023}{\sqrt{2023}}$			
Latest precipitat	ion/snowmelt event: $\frac{8}{2023}$ / $\frac{2023}{2023}$ Amount of Precipitation (in.): $\frac{0.29}{2023}$		
Date dry weathe	er flow or other evidence of an intermittent illicit discharge was first discovered: $\frac{6}{2023}$		
	of previous inspection(s) and describe the actions taken, if applicable:		
SECTION 4: PHY	SICAL OBSERVATIONS		
•	either partially or fully submerged, dry weather flow observations must be made at the next ream point (e.g. manhole) above the influence of the receiving surface waterbody.		
If applicable: Mo	anhole ID: N/A Approximate distance upstream from outfall (ft.): N/A		
•	nall use the table below to describe 1) the observed dry weather flow and/or 2) when there of intermittent illicit discharges present.		
	(Potential illicit discharge sources are listed in parentheses.)		
Odor	 None Sewage (stale/septic sanitary wastewater) Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) 		
	Other:		
Color	 □ Clear □ Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) □ Gray (dairies, sewage) □ Yellow (chemical plants, textile and tanning plants) □ Red (meat packers) □ Other: 		
Turbidity	☐ Clear ☐ Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) ☐ Opaque (food processors, lumber mills, metal works, pigment plants)		
Floatable Matter (Does not include litter)	Floatables of industrial origin may include animal fats, spoiled foods, solvents, sawdust, foams, packing materials, or fuel. Floatables in sanitary wastewater include fecal matter, toilet paper, sanitary napkins, and condoms. None Sewage (toilet paper, etc.) Suds Petroleum (oil sheen)		

Deposits and	Coatings,	residues or fragments of material may be indicators of a potential intermittent	
Stains within	non-stormwater discharge		
outfall	■ None		
	☐ Grayish	n-Black (leather tanneries)	
	☐ White	crystalline powder (Nitrogenous fertilizers)	
	☐ Excessive sediments (construction sites)		
	1 '	sidues (petroleum refineries, storage facilities, vehicle service areas)	
	☐ Other:		
Vegetation	•	red to surrounding Riparian bank and/or stream vegetation	
	■ Norma		
		ve growth and/or algal presence (Food processing plants)	
		ed Growth (Industrial operation effluent, CAFOs)	
of the water of vegetation surr	or no depos counding ou	ns have been conducted and it was determined there was no odor, no discoloration its and stains left on the outfall, turbidity was clear, no floatable matter, and the otfall appears normal, then the dry weather discharge is likely from a groundwater <u>field Monitoring" section below must still be completed for verification</u> .	
	_	analyses in Sections 5 & 6, the source may be traced back upstream in the storm e location by various methods, such as opening manholes, using a camera and/or performing dye tests or smoke tests.*	
SECTION 5: FIEL	D MONITO	RING	
Field c	alibrate ins	truments in accordance with manufacturer's instructions prior to testing.	
Estimated Dry Flow Ra		The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 2.6 GPM	
Deterge Examples include		Potential discharge types include sewage, washwater, industrial or commercial liquid waste	
and methylene l	olue active	Measurement: Measurement: Measurement: Measurement: Measurement	
Temperatur	e of dry	Temperatures >70°F may indicate cooling water discharges depending on the season	
weather dis	charge	Measurement: 83.1 °F	
Pro	ceed to Sec	ction 6 in accordance with the Guidance Document recommendations.	
SECTION 6: DRY	WEATHER	FLOW ANALYSIS - WATER QUALITY	
	•	discharge types determined in the 'Physical Observation' and 'Field Monitoring'	
· -	_	<u>ust be conducted</u> using the appropriate subset of parameters below. The following Ended by the EPA for specific types of discharges as noted in the table below. For	
more information, refer to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance document (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf).			
Indiante the last			
outfall	ition of you	r measurements (e.g. outfall, manhole number, etc.):	

Potential Discharge Type (EPA Guidance)	Discharge Measurement
Sewage, washwater	ND- NOT DETECTED mg/L
Sewage, industrial or commercial liquid waste	1.62 mg/L
>0.35 mg/L likely indicates sewage or washwater	mg/L
Industrial or commercial liquid waste	mg/L
Sewage, washwater, and industrial or commercial liquid waste	S/m
>12,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
>5,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
Sewage	Count/100 mL
Distinguishes potable water from natural or irrigation water	0.23 mg/L
Washwater	SU
	Sewage, washwater Sewage, industrial or commercial liquid waste >0.35 mg/L likely indicates sewage or washwater Industrial or commercial liquid waste Sewage, washwater, and industrial or commercial liquid waste >12,000 Count/100 mL is likely Sanitary Wastewater >5,000 Count/100 mL is likely Sanitary Wastewater Sewage Distinguishes potable water from natural or irrigation water

^{**}The abbreviations FW, PL, SC, SE 1, SE2, and SE3 refer to the surface water quality classification of the receiving surface waterbody where the outfall discharges, as defined in N.J.A.C. 7:9B. FW=Freshwater, PL=Pinelands, SC=Saline Coastal, SE=Saline Estuary. Map coverage of these classifications is available on NJ-GeoWeb (https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d) using the layer under 'Water' of 'Surface Water Quality Classification.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of elim	f the dry weathe ninated.	er flow is	found, and any	illicit discharge is
Based on the latest results from the investigation, in	cluding the resu	lts in Sec	ctions 4, 5 and 6	, is/was this dry
weather flow from an illicit connection?	■ YES	□ NO	☐ INVESTIGAT	TION IS ONGOING
If the investigation has been completed, what was the The source of the dry weather flow is likely cooling.		dry wea	ther flow or illic	it connection?

Describe the investigation, including th	e methods that were/w	rill be used to identify the suspected sour	ce of
the illegal discharge, or conclude there	was no illicit discharge,	along with the timeline of the steps of th	ne
investigation. Attach additional pages	if necessary.		
Surfactants, potassium, ammonia, a	and fluoride were all te	ested on 8/22/2023. None of the other	
		es, but the temperature of the water is	
unseasonably high, which is indicat			
SECTION 8: ILLICIT DISCHARGE ELIMIN	ΔΤΙΩΝ		
		_	
If it was an illicit discharge, has the sou	rce been eliminated?	☐ YES	■ NO
•		ate the illicit connection. This plan should	d
·	<u> </u>	s were/will be used to fix it, how long it	
took/will take, and how removal was/v			
		oceeding with further investigation to	
address the identified illicit discharg	<u>je</u>		
		·	
SECTION 9: INSPECTOR INFORMATION	ı		
Inspector's Name: CAITLIN GILVEY			
Title: PROGRAM ASSOCIATE	Affiliation: RCE	WATER RESOURCES PROGRAM	
	/ 1111110110111		



Outfall ID: PN014 (6/6/2023)

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the <u>Tier A Guidance</u>

<u>Document</u>.

If a dry weather flow or other evidence of an intermittent illicit discharge is observed, this form shall be used to document the illicit discharge investigation in accordance with the current MS4 NJPDES Permit. This completed form shall be uploaded with the permittee's Annual Report and Certification and be kept with the permittee's SPPP as per the recordkeeping requirements of the permit. Initial illicit connection inspections must be performed during dry weather, which is at least 72 hours after the end of the previous precipitation or snowmelt event.

It is required to attach photos of the investigation to this form.

SECTION 1: PERMITTEE INFORMATION				
MS4 Permittee: Hamilton Township	NJP	NJPDES #: NJG0_ ¹⁵⁰²⁵⁸		
SECTION 2: OUTFALL SUMMARY INFORM	IATION			
*If this outfall is newly identi	fied, be sure to add it to your electron	ic outfall p	ipe map.'	k
Outfall ID: PN014 (formerly D0319)	Outfall Location Description: 21	Rivulet Way		
Municipality: Hamilton Township	County:	Mercer		
Receiving Waterbody: Pond Run				
Describe the type of conveyance(s) that d corrugated pipe, concrete channel, etc.):38" diameter pipe		_		
If the ultimate discharge into the receiving partially submerged? *If 'Sometimes' or 'Always,' describe subr	■ NEVE	R □ SON	=	pe fully or * ALWAYS*
If the ultimate discharge into the receiving distance between the end of the last encloseft.): N/A	-	=		
Do any other NJPDES permittees discharg	e through this MS4 outfall?	☐ YES*	■ NO	□ UNKNOWN
*If 'YES', list Permittee Name(s), NJPDES #	#(s), and Location of Connection:			
*If 'VFS' nle	ease contact your MS4 Case Manag	ner *		

SECTION 3: OUT	FALL INSPECTION		
Date of current inspection: $\frac{8}{\sqrt{22}} / \frac{2023}{\sqrt{2023}}$			
Latest precipitat	ion/snowmelt event: $\frac{8}{2023}$ / $\frac{2023}{2023}$ Amount of Precipitation (in.): $\frac{0.29}{2023}$		
Date dry weathe	er flow or other evidence of an intermittent illicit discharge was first discovered: $\frac{6}{2023}$		
	reprevious inspection(s) and describe the actions taken, if applicable:		
SECTION 4: PHY	SICAL OBSERVATIONS		
-	either partially or fully submerged, dry weather flow observations must be made at the next ream point (e.g. manhole) above the influence of the receiving surface waterbody.		
If applicable: Mo	anhole ID: N/A Approximate distance upstream from outfall (ft.): N/A		
•	nall use the table below to describe 1) the observed dry weather flow and/or 2) when there f intermittent illicit discharges present.		
	(Potential illicit discharge sources are listed in parentheses.)		
Odor	 ■ None □ Sewage (stale/septic sanitary wastewater) □ Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) □ Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) □ Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) 		
	□ Other:		
Color	 □ Clear □ Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) □ Gray (dairies, sewage) □ Yellow (chemical plants, textile and tanning plants) □ Red (meat packers) □ Other: 		
Turbidity	 ☐ Clear ☐ Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) ☐ Opaque (food processors, lumber mills, metal works, pigment plants) 		
Floatable Matter (Does not include litter)	Floatables of industrial origin may include animal fats, spoiled foods, solvents, sawdust, foams, packing materials, or fuel. Floatables in sanitary wastewater include fecal matter, toilet paper, sanitary napkins, and condoms. None Sewage (toilet paper, etc.) Suds Petroleum (oil sheen) Other:		

Deposits and	Coatings,	residues or fragments of material may be indicators of a potential intermittent	
Stains within	non-stormwater discharge		
outfall	■ None		
	☐ Grayish	n-Black (leather tanneries)	
	☐ White	crystalline powder (Nitrogenous fertilizers)	
	☐ Excessive sediments (construction sites)		
	1	sidues (petroleum refineries, storage facilities, vehicle service areas)	
	☐ Other:_		
Vegetation	1	red to surrounding Riparian bank and/or stream vegetation	
	■ Norma		
		ve growth and/or algal presence (Food processing plants)	
	│ □ Inhibite	ed Growth (Industrial operation effluent, CAFOs)	
of the water of vegetation surr sourc	or no depos counding ou ce, but <u>the</u> '	ns have been conducted and it was determined there was no odor, no discoloration its and stains left on the outfall, turbidity was clear, no floatable matter, and the atfall appears normal, then the dry weather discharge is likely from a groundwater <u>(Field Monitoring" section below must still be completed for verification.</u> In analyses in Sections 5 & 6, the source may be traced back upstream in the storm	
	_	performing dye tests or smoke tests.*	
SECTION 5: FIEL	D MONITO	RING	
Field o	alibrate ins	truments in accordance with manufacturer's instructions prior to testing.	
Estimated Dry Flow Ra		The Tier A guidance document recommends taking the estimate flow rate during the physical observations. O.3 GPM	
Deterge Examples include		Potential discharge types include sewage, washwater, industrial or commercial liquid waste	
and methylene substances (blue active	Measurement: ND- NOT DETECTED mg/L	
Temperatur weather dis	-	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: ^{67.2} °F	
		ction 6 in accordance with the Guidance Document recommendations.*	
		FLOW ANALYSIS - WATER QUALITY	
* Based on the potential discharge types determined in the 'Physical Observation' and 'Field Monitoring' sections, <u>further testing must be conducted</u> using the appropriate subset of parameters below. The following parameters are recommended by the EPA for specific types of discharges as noted in the table below. For more information, refer to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance document (https://www3.epa.gov/npdes/pubs/idde manualwithappendices.pdf).			
Indicate the loca	ation of you	r measurements (e.g. outfall, manhole number, etc.):	
1			

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	ND-NOT DETECTED mg/L
Potassium	Sewage, industrial or commercial liquid waste	3.99 mg/L
Boron	>0.35 mg/L likely indicates sewage or washwater	mg/L
Chlorine	Industrial or commercial liquid waste	mg/L
Conductivity	Sewage, washwater, and industrial or commercial liquid waste	S/m
E. coli	>12,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
(FW & PL waters)**		
Enterococci	>5,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
(SC & SE1 waters)**		
Fecal Coliform	Sewage	Count/100 mL
(SE2 & SE3 waters)**		
Fluoride	Distinguishes potable water from natural or irrigation water	<0.10 mg/L
pH of Dry Weather Discharge	Washwater	SU

^{**}The abbreviations FW, PL, SC, SE 1, SE2, and SE3 refer to the surface water quality classification of the receiving surface waterbody where the outfall discharges, as defined in N.J.A.C. 7:9B. FW=Freshwater, PL=Pinelands, SC=Saline Coastal, SE=Saline Estuary. Map coverage of these classifications is available on NJ-GeoWeb (https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d) using the layer under 'Water' of 'Surface Water Quality Classification.'

SECTION 7. ILLICIT DISCHARGE INVESTIGATION				
,	of the dry weather flow is found, and any illicit discharge is iminated.*			
Based on the latest results from the investigation,	including the results in Sections 4, 5 and 6, is/was this dry			
weather flow from an illicit connection? ☐ YES ■ NO ☐ INVESTIGATION IS O				
If the investigation has been completed, what was Natural or Irrigation water source, no evidence	the source of the dry weather flow or illicit connection? of illicit discharge detected.			

Describe the investigation, including the	e methods that were/v	vill be used to identify the suspected s	ource of	
the illegal discharge, or conclude there was no illicit discharge, along with the timeline of the steps of the				
investigation. Attach additional pages i	if necessary.			
Surfactants, potassium, ammonia, a	ınd fluoride were all t	ested on 8/22/2023. None of these		
parameters were indicative of illicit of				
reasonable range for the time of year	ar that sampling was	conducted.		
SECTION 8: ILLICIT DISCHARGE ELIMINA	ATION			
If it was an illicit discharge, has the sou	rce been eliminated?	□ Y	ES 🗆 NO	
Describe the plan of action that was/wi	ill he followed to elimir	nate the illicit connection. This plan sh	ould	
detail who is/was responsible for the di		·		
took/will take, and how removal was/w	- .			
				
SECTION 9: INSPECTOR INFORMATION				
Inspector's Name: CAITLIN GILVEY				
Title: PROGRAM ASSOCIATE	Affiliation: RCE	WATER RESOURCES PROGRAM		
	AIIIIIation			



Outfall ID: PN019 (6/9/2023)

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the <u>Tier A Guidance</u>

<u>Document</u>.

If a dry weather flow or other evidence of an intermittent illicit discharge is observed, this form shall be used to document the illicit discharge investigation in accordance with the current MS4 NJPDES Permit. This completed form shall be uploaded with the permittee's Annual Report and Certification and be kept with the permittee's SPPP as per the recordkeeping requirements of the permit. Initial illicit connection inspections must be performed during dry weather, which is at least 72 hours after the end of the previous precipitation or snowmelt event.

It is required to attach photos of the investigation to this form.

SECTION 1: PERMITTEE INFORMATION	
MS4 Permittee: Hamilton Township	NJPDES #: NJG0_150258
SECTION 2: OUTFALL SUMMARY INFORM	IATION
If this outfall is newly identi	fied, be sure to add it to your electronic outfall pipe map.
Outfall ID: PN019 (formerly D0311)	Outfall Location Description: 2103 Whitehorse Mercerville Rd
Municipality: Hamilton Township	County: Mercer
Receiving Waterbody: Pond Run	
	elivers the stormwater to the receiving waterbody (concrete or
If the ultimate discharge into the receivin partially submerged?	g water is from an enclosed pipe , is the end of the pipe fully or ■ NEVER □ SOMETIMES* □ ALWAYS*
*If 'Sometimes' or 'Always,' describe subi	
_	g water is not from an enclosed pipe , what is the approximate osed stormwater conveyance pipe to the receiving waterbody
Do any other NJPDES permittees discharge	e through this MS4 outfall? ☐ YES* ■ NO ☐ UNKNOWN
*If 'YES', list Permittee Name(s), NJPDES #	#(s), and Location of Connection:
If 'YES', ple	ase contact your MS4 Case Manager.

SECTION 3: OUT	FALL INSPECTION	
Date of current inspection: $\frac{8}{\sqrt{22}} / \frac{2023}{\sqrt{2023}}$		
Latest precipitat	ion/snowmelt event: $\frac{8}{2023}$ / $\frac{2023}{2023}$ Amount of Precipitation (in.): $\frac{0.29}{2023}$	
Date dry weathe	er flow or other evidence of an intermittent illicit discharge was first discovered: $\frac{6}{2} = \frac{9}{2023}$	
	of previous inspection(s) and describe the actions taken, if applicable:	
SECTION 4: PHY	SICAL OBSERVATIONS	
-	either partially or fully submerged, dry weather flow observations must be made at the next ream point (e.g. manhole) above the influence of the receiving surface waterbody.	
If applicable: Mo	anhole ID: N/A Approximate distance upstream from outfall (ft.): N/A	
•	nall use the table below to describe 1) the observed dry weather flow and/or 2) when there if intermittent illicit discharges present.	
	(Potential illicit discharge sources are listed in parentheses.)	
Odor	 None Sewage (stale/septic sanitary wastewater) Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) 	
	Other:	
Color	 □ Clear □ Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) □ Gray (dairies, sewage) □ Yellow (chemical plants, textile and tanning plants) □ Red (meat packers) □ Other: 	
Turbidity	☐ Clear ☐ Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) ☐ Opaque (food processors, lumber mills, metal works, pigment plants)	
Floatable Matter (Does not include litter)	Floatables of industrial origin may include animal fats, spoiled foods, solvents, sawdust, foams, packing materials, or fuel. Floatables in sanitary wastewater include fecal matter, toilet paper, sanitary napkins, and condoms. None Sewage (toilet paper, etc.) Suds Petroleum (oil sheen)	

Deposits and Stains within	-	residues or fragments of material may be indicators of a potential intermittent	
outfall	non-stormwater discharge		
Outian	□ None		
	☐ Grayish-Black (leather tanneries)		
		crystalline powder (Nitrogenous fertilizers)	
		ve sediments (construction sites)	
	☐ Oily res	sidues (petroleum refineries, storage facilities, vehicle service areas)	
Vegetation	_	red to surrounding Riparian bank and/or stream vegetation	
	■ Normal		
		ve growth and/or algal presence (Food processing plants)	
		ed Growth (Industrial operation effluent, CAFOs)	
of the water of vegetation surr sourc Prior to cond	or no deposion ounding ou e, but <u>the "</u> ucting the c	its and stains left on the outfall, turbidity was clear, no floatable matter, and the itfall appears normal, then the dry weather discharge is likely from a groundwater 'Field Monitoring" section below must still be completed for verification.	
sewer to a mo	re aejinitive	e location by various methods, such as opening manholes, using a camera and/or performing dye tests or smoke tests.*	
SECTION 5: FIELD	D MONITO	RING	
Field c	alibrate ins	truments in accordance with manufacturer's instructions prior to testing.	
Estimated Dry Flow Ra		The Tier A guidance document recommends taking the estimate flow rate during the physical observations. O.01 GPM	
Deterge		Potential discharge types include sewage, washwater, industrial or commercial liquid waste	
Examples include and methylene b substances (l	lue active	Measurement: 0.100 mg/L	
Temperature	e of dry	Temperatures >70°F may indicate cooling water discharges depending on the season	
weather dis	-	Measurement: 74.6 °F	
Pro	ceed to Sec	tion 6 in accordance with the Guidance Document recommendations.	
SECTION 6: DRY	WEATHER	FLOW ANALYSIS - WATER QUALITY	
* Based on the potential discharge types determined in the 'Physical Observation' and 'Field Monitoring' sections, further testing must be conducted using the appropriate subset of parameters below. The following parameters are recommended by the EPA for specific types of discharges as noted in the table below. For more information, refer to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance document (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf). Indicate the location of your measurements (e.g. outfall, manhole number, etc.): Outfall			

Parameter	Potential Discharge Type (EPA Guidance)	Discharge	Measurement
Ammonia	Sewage, washwater	0.822	mg/L
Potassium	Sewage, industrial or commercial liquid waste	9.47	mg/L
Boron	>0.35 mg/L likely indicates sewage or washwater		mg/L
Chlorine	Industrial or commercial liquid waste		mg/L
Conductivity	Sewage, washwater, and industrial or commercial liquid waste		S/m
E. coli	>12,000 Count/100 mL is likely Sanitary Wastewater		Count/100 mL
(FW & PL waters)**			
Enterococci	>5,000 Count/100 mL is likely Sanitary Wastewater		Count/100 mL
(SC & SE1 waters)**			
Fecal Coliform	Sewage		Count/100 mL
(SE2 & SE3 waters)**			
Fluoride	Distinguishes potable water from natural or irrigation water	0.33	mg/L
pH of Dry Weather Discharge	Washwater		SU

^{**}The abbreviations FW, PL, SC, SE 1, SE2, and SE3 refer to the surface water quality classification of the receiving surface waterbody where the outfall discharges, as defined in N.J.A.C. 7:9B. FW=Freshwater, PL=Pinelands, SC=Saline Coastal, SE=Saline Estuary. Map coverage of these classifications is available on NJ-GeoWeb (https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d) using the layer under 'Water' of 'Surface Water Quality Classification.'

SECTION 7. IEEECH DISCHARGE HAVESHOATION		
The investigation is not complete until the source el	of the dry weather iminated.	flow is found, and any illicit discharge is
Based on the latest results from the investigation,	including the result	ts in Sections 4, 5 and 6, is/was this dry
weather flow from an illicit connection?	■ YES	□ NO □ INVESTIGATION IS ONGOING
If the investigation has been completed, what was The illicit discharge is likely from a sanitary wa		dry weather flow or illicit connection?

Describe the investigation, including the	e methods that were/w	rill be used to identify the suspe	cted source of
the illegal discharge, or conclude there	was no illicit discharge,	along with the timeline of the	steps of the
investigation. Attach additional pages i	if necessary.		
Surfactants, potassium, ammonia, a	nd fluoride were all te	ested on 8/22/2023. The dete	rgent
concentration exceeds 0.06 mg/L, w			•
there was not a high ammonia to po			
sanitary washwater.			
SECTION 8: ILLICIT DISCHARGE ELIMINA	ATION		
If it was an illicit discharge, has the soul	rce been eliminated?		☐ YES ■ NO
Describe the plan of action that was/wi	ill he followed to elimin	ate the illicit connection. This n	dan should
detail who is/was responsible for the di		•	
took/will take, and how removal was/w	• .		v iong it
The town of Hamilton Township will	•	oceeding with further investig	ation to
address the identified illicit discharg	<u>e. </u>		
		·	
			
SECTION 9: INSPECTOR INFORMATION			
Inspector's Name: CAITLIN GILVEY			
Title: PROGRAM ASSOCIATE	Affiliation: RCF	WATER RESOURCES PROGRAM	
	Affiliation. Not		



Outfall ID: PN029 (6/6/2023)

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the <u>Tier A Guidance</u>

<u>Document</u>.

If a dry weather flow or other evidence of an intermittent illicit discharge is observed, this form shall be used to document the illicit discharge investigation in accordance with the current MS4 NJPDES Permit. This completed form shall be uploaded with the permittee's Annual Report and Certification and be kept with the permittee's SPPP as per the recordkeeping requirements of the permit. Initial illicit connection inspections must be performed during dry weather, which is at least 72 hours after the end of the previous precipitation or snowmelt event.

It is required to attach photos of the investigation to this form.

SECTION 1: PERMITTEE INFORMATION	
MS4 Permittee: Hamilton Township	NJPDES #: NJG0_150258
SECTION 2: OUTFALL SUMMARY INFORM	ATION
If this outfall is newly identif	ied, be sure to add it to your electronic outfall pipe map.
Outfall ID: PN029 (formerly D0321)	Outfall Location Description: 728 Estates Boulevard
Municipality: Hamilton Township	County: Mercer
Receiving Waterbody: Pond Run	
	elivers the stormwater to the receiving waterbody (concrete or
partially submerged?	g water is from an enclosed pipe , is the end of the pipe fully or ■ NEVER □ SOMETIMES* □ ALWAYS*
*If 'Sometimes' or 'Always,' describe subn	-
_	g water is not from an enclosed pipe , what is the approximate osed stormwater conveyance pipe to the receiving waterbody
Do any other NJPDES permittees discharge	e through this MS4 outfall? ☐ YES* ■ NO ☐ UNKNOWN
*If 'YES', list Permittee Name(s), NJPDES #	(s), and Location of Connection:
_N/A	
If 'YES', ple	ase contact your MS4 Case Manager.

SECTION 3: OUT	FALL INSPECTION	
Date of current inspection: $\frac{8}{22} / \frac{2023}{2023}$		
Latest precipitat	ion/snowmelt event: $\frac{8}{2023}$ / $\frac{2023}{2023}$ Amount of Precipitation (in.): $\frac{0.29}{2023}$	
Date dry weathe	er flow or other evidence of an intermittent illicit discharge was first discovered: $\frac{6}{2023}$	
	of previous inspection(s) and describe the actions taken, if applicable:weather flow was observed, added to the list for further sampling.	
SECTION 4: PHY	SICAL OBSERVATIONS	
•	either partially or fully submerged, dry weather flow observations must be made at the next ream point (e.g. manhole) above the influence of the receiving surface waterbody.	
If applicable: Mo	anhole ID: N/A Approximate distance upstream from outfall (ft.): N/A	
•	nall use the table below to describe 1) the observed dry weather flow and/or 2) when there of intermittent illicit discharges present.	
	(Potential illicit discharge sources are listed in parentheses.) ■ None	
Odor	 □ Sewage (stale/septic sanitary wastewater) □ Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) □ Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) □ Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) 	
	Other:	
Color	 □ Clear ■ Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) □ Gray (dairies, sewage) □ Yellow (chemical plants, textile and tanning plants) □ Red (meat packers) □ Other: 	
Turbidity	☐ Clear ☐ Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) ☐ Opaque (food processors, lumber mills, metal works, pigment plants)	
Floatable Matter (Does not include litter)	Floatables of industrial origin may include animal fats, spoiled foods, solvents, sawdust, foams, packing materials, or fuel. Floatables in sanitary wastewater include fecal matter, toilet paper, sanitary napkins, and condoms. None Sewage (toilet paper, etc.) Suds Petroleum (oil sheen)	

Deposits and	Coatings,	residues or fragments of material may be indicators of a potential intermittent		
Stains within	non-stormwater discharge			
outfall	■ None			
	☐ Grayish	n-Black (leather tanneries)		
	☐ White	crystalline powder (Nitrogenous fertilizers)		
	☐ Excessive sediments (construction sites)			
	\square Oily residues (petroleum refineries, storage facilities, vehicle service areas)			
	Other:			
Vegetation	•	red to surrounding Riparian bank and/or stream vegetation		
	■ Norma			
		ve growth and/or algal presence (Food processing plants)		
		ed Growth (Industrial operation effluent, CAFOs)		
of the water of vegetation surr	or no depos counding ou	ns have been conducted and it was determined there was no odor, no discoloration its and stains left on the outfall, turbidity was clear, no floatable matter, and the otfall appears normal, then the dry weather discharge is likely from a groundwater <u>(Field Monitoring" section below must still be completed for verification</u> .		
	_	analyses in Sections 5 & 6, the source may be traced back upstream in the storm e location by various methods, such as opening manholes, using a camera and/or performing dye tests or smoke tests.*		
SECTION 5: FIEL	D MONITO	RING		
Field c	alibrate ins	truments in accordance with manufacturer's instructions prior to testing.		
Estimated Dry Flow Ra		The Tier A guidance document recommends taking the estimate flow rate during the physical observations. O.3 GPM		
Deterge Examples include		Potential discharge types include sewage, washwater, industrial or commercial liquid waste		
and methylene l substances (olue active	Measurement: Measurement: Mg/L		
Temperatur	e of dry	Temperatures >70°F may indicate cooling water discharges depending on the season		
weather dis	charge	Measurement: 71.4 °F		
*Pro	*Proceed to Section 6 in accordance with the Guidance Document recommendations.*			
SECTION 6: DRY	WEATHER	FLOW ANALYSIS - WATER QUALITY		
	•	discharge types determined in the 'Physical Observation' and 'Field Monitoring'		
· -	_	<u>ust be conducted</u> using the appropriate subset of parameters below. The following Ended by the EPA for specific types of discharges as noted in the table below. For		
more information, refer to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance				
In all nations to the		(https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf).		
outfall	ation of you	r measurements (e.g. outfall, manhole number, etc.):		
<u> </u>				

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement	
Ammonia	Sewage, washwater	ND- NOT DETECTED mg/L	
Potassium	Sewage, industrial or commercial liquid waste	4.91 mg/L	
Boron	>0.35 mg/L likely indicates sewage or washwater	mg/L	
Chlorine	Industrial or commercial liquid waste	mg/L	
Conductivity	Sewage, washwater, and industrial or commercial liquid waste	S/m	
E. coli	>12,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL	
(FW & PL waters)**			
Enterococci	>5,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL	
(SC & SE1 waters)**			
Fecal Coliform	Sewage	Count/100 mL	
(SE2 & SE3 waters)**			
Fluoride	Distinguishes potable water from natural or irrigation water	0.41 mg/L	
pH of Dry Weather Discharge	Washwater	SU	

^{**}The abbreviations FW, PL, SC, SE 1, SE2, and SE3 refer to the surface water quality classification of the receiving surface waterbody where the outfall discharges, as defined in N.J.A.C. 7:9B. FW=Freshwater, PL=Pinelands, SC=Saline Coastal, SE=Saline Estuary. Map coverage of these classifications is available on NJ-GeoWeb (https://nidep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d) using the layer under 'Water' of 'Surface Water Quality Classification.'

*The investigation is not complete until the source of the eliminate	•	er flow is	found, and any illicit discharge is
Based on the latest results from the investigation, includi	ing the resu	lts in Sec	ctions 4, 5 and 6, is/was this dry
weather flow from an illicit connection?	☐ YES	■ NO	\square INVESTIGATION IS ONGOING
If the investigation has been completed, what was the so The source of the dry weather flow is natural or irriga		•	ther flow or illicit connection?

Describe the investigation, including the	methods that we	ere/will be used to identify the suspect	ed source of		
the illegal discharge, or conclude there was no illicit discharge, along with the timeline of the steps of the					
investigation. Attach additional pages if	f necessary.				
There is no evidence of illicit dischar	ge detected. The	e water was sampled for detergents	, fluoride,		
ammonia, and potassium. Results fo					
water temperature was within a reas	onable range for	the temperature at the time sampli	ng was		
conducted.					
-					
SECTION 8: ILLICIT DISCHARGE ELIMINA	ATION				
If it was an illicit discharge, has the sour	ce been eliminate	d? [☐ YES ☐ NO		
Describe the plan of action that was/wil	l be followed to e	liminate the illicit connection. This pla	n should		
detail who is/was responsible for the dis		•			
took/will take, and how removal was/w	•		. 0 .		
SECTION 9: INSPECTOR INFORMATION					
Inspector's Name: CAITLIN GILVEY					
Title: PROGRAM ASSOCIATE	Affiliation:	RCE WATER RESOURCES PROGRAM			
Signature: Caitlin Gilvey	Digitally signed by Caitlin Gilvey Date: 2023.10.26 12:32:57 -04'00'	Date: 10/26/2023			



Outfall ID: 29 (8/22/2023)

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the <u>Tier A Guidance</u>

<u>Document</u>.

If a dry weather flow or other evidence of an intermittent illicit discharge is observed, this form shall be used to document the illicit discharge investigation in accordance with the current MS4 NJPDES Permit. This completed form shall be uploaded with the permittee's Annual Report and Certification and be kept with the permittee's SPPP as per the recordkeeping requirements of the permit. Initial illicit connection inspections must be performed during dry weather, which is at least 72 hours after the end of the previous precipitation or snowmelt event.

It is required to attach photos of the investigation to this form.

SECTION 1: PERMITTEE INFORMATION		
MS4 Permittee: Hamilton Township	NJPDES #: NJG0_150258	
SECTION 2: OUTFALL SUMMARY INFORM	IATION	
If this outfall is newly identij	fied, be sure to add it to your electronic outfall pipe map.	
Outfall ID: 29	Outfall Location Description: 135 Sawmill Road	
Municipality: Hamilton Township	County: Mercer	
Receiving Waterbody: Crosswicks Creek Trib	outary	
corrugated pipe, concrete channel, etc.): _	elivers the stormwater to the receiving waterbody (concr	ete or
If the ultimate discharge into the receiving partially submerged?	g water is from an enclosed pipe , is the end of the pipe fu☐ NEVER ☐ SOMETIMES* ☐	-
*If 'Sometimes' or 'Always,' describe subn Not submerged	·	
_	g water is not from an enclosed pipe , what is the approxious osed stormwater conveyance pipe to the receiving waterl	
Do any other NJPDES permittees discharge	e through this MS4 outfall? ☐ YES* ■ NO ☐ U	JNKNOWN
*If 'YES', list Permittee Name(s), NJPDES #_N/A		
*If 'VFC' nlo	ase contact your MS4 Case Manager *	

SECTION 3: OUT	FALL INSPECTION				
Date of current inspection: $\frac{8}{\sqrt{22}} / \frac{2023}{\sqrt{2023}}$					
Latest precipitat	Latest precipitation/snowmelt event: $\frac{8}{2023}$ Amount of Precipitation (in.): $\frac{0.29}{2029}$				
Date dry weathe	er flow or other evidence of an intermittent illicit discharge was first discovered: $\frac{8}{16}$				
	of previous inspection(s) and describe the actions taken, if applicable:tfall identified as potential illicit discharge and added to list to be sampled.				
SECTION 4: PHY	SICAL OBSERVATIONS				
-	either partially or fully submerged, dry weather flow observations must be made at the next ream point (e.g. manhole) above the influence of the receiving surface waterbody.				
If applicable: M	anhole ID: N/A Approximate distance upstream from outfall (ft.): N/A				
•	nall use the table below to describe 1) the observed dry weather flow and/or 2) when there of intermittent illicit discharges present.				
	(Potential illicit discharge sources are listed in parentheses.)				
Odor	 None Sewage (stale/septic sanitary wastewater) Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) 				
	Other:				
Color	 □ Clear ■ Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) □ Gray (dairies, sewage) □ Yellow (chemical plants, textile and tanning plants) □ Red (meat packers) □ Other: 				
Turbidity	 □ Clear □ Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) □ Opaque (food processors, lumber mills, metal works, pigment plants) 				
Floatable Matter (Does not include litter)	Floatables of industrial origin may include animal fats, spoiled foods, solvents, sawdust, foams, packing materials, or fuel. Floatables in sanitary wastewater include fecal matter, toilet paper, sanitary napkins, and condoms. None Sewage (toilet paper, etc.) Suds Petroleum (oil sheen) Other:				

Deposits and	Coatings,	residues or fragments of material may be indicators of a potential intermittent	
Stains within	non-stormwater discharge		
outfall	□ None		
	☐ Grayish-Black (leather tanneries)		
	☐ White crystalline powder (Nitrogenous fertilizers)		
	■ Excessive sediments (construction sites)		
	☐ Oily residues (petroleum refineries, storage facilities, vehicle service areas)		
	☐ Other:_		
Vegetation	l -	red to surrounding Riparian bank and/or stream vegetation	
	■ Normal		
		ve growth and/or algal presence (Food processing plants)	
	□ Inhibite	ed Growth (Industrial operation effluent, CAFOs)	
of the water of vegetation surr	or no deposi ounding ou	ns have been conducted and it was determined there was no odor, no discoloration its and stains left on the outfall, turbidity was clear, no floatable matter, and the tfall appears normal, then the dry weather discharge is likely from a groundwater (Field Monitoring" section below must still be completed for verification.	
	_	analyses in Sections 5 & 6, the source may be traced back upstream in the storm e location by various methods, such as opening manholes, using a camera and/or performing dye tests or smoke tests.*	
SECTION 5: FIEL	D MONITO	RING	
Field c	alibrate ins	truments in accordance with manufacturer's instructions prior to testing.	
Estimated Dry Flow Ra		The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 2.5 GPM	
Deterge Examples include		Potential discharge types include sewage, washwater, industrial or commercial liquid waste	
and methylene k	lue active	Measurement: 0.107 mg/L	
Temperatur	e of dry	Temperatures >70°F may indicate cooling water discharges depending on the season	
weather dis	charge	Measurement: 71.1 °F	
Pro	ceed to Sec	tion 6 in accordance with the Guidance Document recommendations.	
SECTION 6: DRY	WEATHER	FLOW ANALYSIS - WATER QUALITY	
sections, <u>further</u> parameters ai more inform	r testing mure re recomme ation, refer document	discharge types determined in the 'Physical Observation' and 'Field Monitoring' ust be conducted using the appropriate subset of parameters below. The following ended by the EPA for specific types of discharges as noted in the table below. For to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf). r measurements (e.g. outfall, manhole number, etc.):	

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	ND- NOT DETECTED mg/L
Potassium	Sewage, industrial or commercial liquid waste	2.31 mg/L
Boron	>0.35 mg/L likely indicates sewage or washwater	mg/L
Chlorine	Industrial or commercial liquid waste	mg/L
Conductivity	Sewage, washwater, and industrial or commercial liquid waste	S/m
E. coli (FW & PL waters)**	>12,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
Enterococci (SC & SE1 waters)**	>5,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
Fecal Coliform (SE2 & SE3 waters)**	Sewage	Count/100 mL
Fluoride	Distinguishes potable water from natural or irrigation water	<0.10 mg/L
pH of Dry Weather Discharge	Washwater	SU

^{**}The abbreviations FW, PL, SC, SE 1, SE2, and SE3 refer to the surface water quality classification of the receiving surface waterbody where the outfall discharges, as defined in N.J.A.C. 7:9B. FW=Freshwater, PL=Pinelands, SC=Saline Coastal, SE=Saline Estuary. Map coverage of these classifications is available on NJ-GeoWeb (https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d) using the layer under 'Water' of 'Surface Water Quality Classification.'

The investigation is not complete until the source el	of the dry weathe liminated.	er flow is found, ar	nd any illicit discharge is
Based on the latest results from the investigation,	including the resu	lts in Sections 4, 5	and 6, is/was this dry
weather flow from an illicit connection?	■ YES	□ NO □ INVES	STIGATION IS ONGOING
If the investigation has been completed, what was The source of dry weather flow is likely sanitar		dry weather flow	or illicit connection?

Describe the investigation, including th	ne methods that were/w	vill be used to identify the susp	ected source of	
he illegal discharge, or conclude there was no illicit discharge, along with the timeline of the steps of the				
investigation. Attach additional pages	if necessary.			
Surfactants, potassium, ammonia, a	and fluoride were all te	ested on 8/22/2023. The det	ergent	
concentration exceeds 0.06 mg/L, v	which is indicative of s	anitary wastewater or wash	water. Since	
there was not a high ammonia to po	otassium ratio, it could	be concluded that the sour	ce is likely	
sanitary washwater.				
SECTION 8: ILLICIT DISCHARGE ELIMIN	IATION			
If it was an illicit discharge, has the sou	irce been eliminated?		☐ YES ■ NO	
Describe the plan of action that was/w	vill he followed to elimin	ate the illicit connection. This	nlan should	
detail who is/was responsible for the o			•	
took/will take, and how removal was/v	<u> </u>		ow long it	
The town of Hamilton Township wil			igation to	
address the identified illicit dischard		soccaring with farther invest	igation to	
)			
		·		
SECTION 9: INSPECTOR INFORMATION	V			
Inspector's Name: CAITLIN GILVEY				
Title: PROGRAM ASSOCIATE	PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM			
Signature: Caitlin Gilvey	Digitally signed by Caitlin Gilvey Date: 2023.11.07 16:24:52 -05'00'	Date: 11/07/2023		



Outfall ID: 26 (8/22/2023)

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the <u>Tier A Guidance</u>

<u>Document</u>.

If a dry weather flow or other evidence of an intermittent illicit discharge is observed, this form shall be used to document the illicit discharge investigation in accordance with the current MS4 NJPDES Permit. This completed form shall be uploaded with the permittee's Annual Report and Certification and be kept with the permittee's SPPP as per the recordkeeping requirements of the permit. Initial illicit connection inspections must be performed during dry weather, which is at least 72 hours after the end of the previous precipitation or snowmelt event.

It is required to attach photos of the investigation to this form.

SECTION 1: PERMITTEE INFORMATION				
MS4 Permittee: Hamilton Township	NJF	NJPDES #: NJG0_ ¹⁵⁰²⁵⁸		
SECTION 2: OUTFALL SUMMARY INFORM	ATION			
*If this outfall is newly identif	fied, be sure to add it to your electror	nic outfall pi	ipe map.'	k
Outfall ID: 26	Outfall Location Description: 9 lr	on Bridge R	oad	
Municipality: Hamilton Township	County:	Mercer		
Receiving Waterbody: Edges Brook Tributary	·			
Describe the type of conveyance(s) that decorrugated pipe, concrete channel, etc.): _24" diameter concrete pipe				
If the ultimate discharge into the receiving partially submerged? *If 'Sometimes' or 'Always,' describe subm	■ NEVE	ER □ SOM	•	pe fully or * ALWAYS*
N/A				
If the ultimate discharge into the receiving distance between the end of the last enclouding.	-	=	-	
Do any other NJPDES permittees discharge	e through this MS4 outfall?	☐ YES*	■ NO	□ UNKNOWN
*If 'YES', list Permittee Name(s), NJPDES #	e(s), and Location of Connection:			
If 'YFS'. nle	ase contact your MS4 Case Manag	aer.		

SECTION 3: OUT	FALL INSPECTION				
Date of current inspection: $\frac{8}{\sqrt{22}} / \frac{2023}{\sqrt{2023}}$					
Latest precipitat	Latest precipitation/snowmelt event: $\frac{8}{2023}$ Amount of Precipitation (in.): $\frac{0.29}{2023}$				
Date dry weathe	er flow or other evidence of an intermittent illicit discharge was first discovered: $\frac{8}{26}$				
List the date(s) of previous inspection(s) and describe the actions taken, if applicable:					
SECTION 4: PHY	SICAL OBSERVATIONS				
•	either partially or fully submerged, dry weather flow observations must be made at the next ream point (e.g. manhole) above the influence of the receiving surface waterbody.				
If applicable: Mo	anhole ID: N/A Approximate distance upstream from outfall (ft.): N/A				
•	nall use the table below to describe 1) the observed dry weather flow and/or 2) when there fintermittent illicit discharges present.				
	(Potential illicit discharge sources are listed in parentheses.)				
Odor	 None □ Sewage (stale/septic sanitary wastewater) □ Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) □ Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) □ Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, 				
	canneries, dairies, etc.) Other:				
Color	☐ Clear ☐ Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) ☐ Gray (dairies, sewage) ☐ Yellow (chemical plants, textile and tanning plants) ☐ Red (meat packers) ☐ Other:				
Turbidity	☐ Clear ☐ Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) ☐ Opaque (food processors, lumber mills, metal works, pigment plants)				
Floatable Matter (Does not include litter)	Floatables of industrial origin may include animal fats, spoiled foods, solvents, sawdust, foams, packing materials, or fuel. Floatables in sanitary wastewater include fecal matter, toilet paper, sanitary napkins, and condoms. None Sewage (toilet paper, etc.) Suds Petroleum (oil sheen) Other:				

Deposits and	Coatings,	residues or fragments of material may be indicators of a potential intermittent		
Stains within	non-stormwater discharge			
outfall	□ None			
	☐ Grayish-Black (leather tanneries)			
	☐ White crystalline powder (Nitrogenous fertilizers)			
	■ Excessive sediments (construction sites)			
	☐ Oily residues (petroleum refineries, storage facilities, vehicle service areas)			
	☐ Other:	, , , , , , , , , , , , , , , , , , , ,		
Vegetation	_	red to surrounding Riparian bank and/or stream vegetation		
	□ Norma			
	■ Excessi	ve growth and/or algal presence (Food processing plants)		
		ed Growth (Industrial operation effluent, CAFOs)		
*.C.1 D1 : 1				
		ns have been conducted and it was determined there was no odor, no discoloration		
_	•	its and stains left on the outfall, turbidity was clear, no floatable matter, and the attacked the attacked in the dry weather discharge is likely from a groundwater		
_	_	'Field Monitoring" section below must still be completed for verification.		
	_	analyses in Sections 5 & 6, the source may be traced back upstream in the storm		
sewer to a mo	re definitive	e location by various methods, such as opening manholes, using a camera and/or performing dye tests or smoke tests.*		
SECTION 5: FIEL	D MONITO	RING		
Field c	alibrate ins	truments in accordance with manufacturer's instructions prior to testing.		
Estimated Dry	Weather	The Tier A guidance document recommends taking the estimate flow rate during the		
Flow Ra	ate	physical observations.		
		Detartial discharge types include source, week-water industrial or commercial limited		
Deterge	nts	Potential discharge types include sewage, washwater, industrial or commercial liquid waste		
Examples include	surfactants	waste		
and methylene b		Measurement: ND-NOT DETECTED mg/L		
substances (Temperatures >70°F may indicate cooling water discharges depending on the season		
Temperatur	-			
weather dis	scharge	Measurement: 70.1 °F		
Pro	oceed to Sec	ction 6 in accordance with the Guidance Document recommendations.		
SECTION 6: DRY	WEATHER	FLOW ANALYSIS - WATER QUALITY		
* Based on th	ne potential	discharge types determined in the 'Physical Observation' and 'Field Monitoring'		
sections, <u>furthe</u>	r testing mu	<u>ust be conducted using the appropriate subset of parameters below. The following</u>		
parameters a	re recomme	ended by the EPA for specific types of discharges as noted in the table below. For		
more inform	more information, refer to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance			
	document	(https://www3.epa.gov/npdes/pubs/idde manualwithappendices.pdf).		
Indicate the loca	ation of you	r measurements (e.g. outfall, manhole number, etc.):		
Outfall	<u>.</u>	· 		

Parameter	Potential Discharge Type (EPA Guidance)	Discharge	Measurement
Ammonia	Sewage, washwater	ND- NOT D	ETECTED mg/L
Potassium	Sewage, industrial or commercial liquid waste	3.06	mg/L
Boron	>0.35 mg/L likely indicates sewage or washwater		mg/L
Chlorine	Industrial or commercial liquid waste		mg/L
Conductivity	Sewage, washwater, and industrial or commercial liquid waste		S/m
E. coli (FW & PL waters)**	>12,000 Count/100 mL is likely Sanitary Wastewater		Count/100 mL
Enterococci (SC & SE1 waters)**	>5,000 Count/100 mL is likely Sanitary Wastewater		Count/100 mL
Fecal Coliform (SE2 & SE3 waters)**	Sewage		Count/100 mL
Fluoride	Distinguishes potable water from natural or irrigation water	<0.10	mg/L
pH of Dry Weather Discharge	Washwater		SU

^{**}The abbreviations FW, PL, SC, SE 1, SE2, and SE3 refer to the surface water quality classification of the receiving surface waterbody where the outfall discharges, as defined in N.J.A.C. 7:9B. FW=Freshwater, PL=Pinelands, SC=Saline Coastal, SE=Saline Estuary. Map coverage of these classifications is available on NJ-GeoWeb (https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d) using the layer under 'Water' of 'Surface Water Quality Classification.'

,	of the dry weather flow is found, and any illicit discharge is liminated.*			
Based on the latest results from the investigation, i	including the results in Sections 4, 5 and 6, is/was this dry			
weather flow from an illicit connection? ☐ YES ■ NO ☐ INVESTIGATION IS O				
If the investigation has been completed, what was No substantial evidence of illicit discharge.	the source of the dry weather flow or illicit connection?			

Describe the investigation, including the	e methods that we	re/will be used to identify the suspec	ted source of	
the illegal discharge, or conclude there was no illicit discharge, along with the timeline of the steps of the				
investigation. Attach additional pages i	f necessary.			
Surfactants, potassium, ammonia, a				
parameters were indicative of other				
within a reasonable range for the time				
discharge is not suspected.				
SECTION 8: ILLICIT DISCHARGE ELIMINA	ATION			
If it was an illicit discharge, has the sour	rce been eliminate	d?	□ YES □ NO	
Describe the plan of action that was/wi detail who is/was responsible for the di took/will take, and how removal was/w	scharge, what met	thods were/will be used to fix it, how		
				
SECTION 9: INSPECTOR INFORMATION				
Inspector's Name: CAITLIN GILVEY				
Title: PROGRAM ASSOCIATE	Affiliation:	RCE WATER RESOURCES PROGRAM		
Signature: Caitlin Gilvey	Digitally signed by Caitlin Gilvey Date: 2023.11.07 16:26:55 -05'00'	Date: 11/07/2023		



Outfall ID: PN010 (6/6/2023)

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the <u>Tier A Guidance</u>

<u>Document</u>.

If a dry weather flow or other evidence of an intermittent illicit discharge is observed, this form shall be used to document the illicit discharge investigation in accordance with the current MS4 NJPDES Permit. This completed form shall be uploaded with the permittee's Annual Report and Certification and be kept with the permittee's SPPP as per the recordkeeping requirements of the permit. Initial illicit connection inspections must be performed during dry weather, which is at least 72 hours after the end of the previous precipitation or snowmelt event.

It is required to attach photos of the investigation to this form.

SECTION 1: PERMITTEE INFORMATION	
MS4 Permittee: Hamilton Township	NJPDES #: NJG0_150258
SECTION 2: OUTFALL SUMMARY INFORM	1ATION
If this outfall is newly identi	fied, be sure to add it to your electronic outfall pipe map.
Outfall ID: PN010 (formerly C0301)	Outfall Location Description: 83 Whitehall Road
Municipality: Hamilton Township	County: Mercer
Receiving Waterbody: Pond Run	
	elivers the stormwater to the receiving waterbody (concrete or
If the ultimate discharge into the receivin partially submerged?	g water is from an enclosed pipe , is the end of the pipe fully or ■ NEVER □ SOMETIMES* □ ALWAYS*
*If 'Sometimes' or 'Always,' describe sub	merged condition at time of inspection:
_	g water is not from an enclosed pipe , what is the approximate osed stormwater conveyance pipe to the receiving waterbody
Do any other NJPDES permittees discharge	e through this MS4 outfall? ☐ YES* ■ NO ☐ UNKNOWN
*If 'YES', list Permittee Name(s), NJPDES #	‡(s), and Location of Connection:
If 'YES', ple	ease contact your MS4 Case Manager.

SECTION 3: OUT	FALL INSPECTION			
Date of current inspection: $\frac{8}{\sqrt{22}} / \frac{2023}{\sqrt{2023}}$				
Latest precipitat	Latest precipitation/snowmelt event: $\frac{8}{2023}$ Amount of Precipitation (in.): $\frac{0.29}{2023}$			
Date dry weathe	r flow or other evidence of an intermittent illicit discharge was first discovered: $\frac{6}{2023}$			
	of previous inspection(s) and describe the actions taken, if applicable:all identified as potential illicit discharge and added to list to be sampled.			
SECTION 4: PHY	SICAL OBSERVATIONS			
-	either partially or fully submerged, dry weather flow observations must be made at the next ream point (e.g. manhole) above the influence of the receiving surface waterbody.			
If applicable: Mo	anhole ID: N/A Approximate distance upstream from outfall (ft.): N/A			
•	nall use the table below to describe 1) the observed dry weather flow and/or 2) when there fintermittent illicit discharges present.			
	(Potential illicit discharge sources are listed in parentheses.)			
Odor	□ None □ Sewage (stale/septic sanitary wastewater)			
	☐ Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum			
	product storage)			
	□ Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.)□ Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers,			
	canneries, dairies, etc.)			
	□ Other:			
Color	□ Clear			
	☐ Brown (meat packers, printing plants, metal works, concrete or stone operations,			
	fertilizer facilities, and petroleum refining facilities) □ Gray (dairies, sewage)			
	☐ Yellow (chemical plants, textile and tanning plants)			
	□ Red (meat packers)			
	☐ Other:			
Turbidity	□ Clear			
	☐ Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and			
	automotive dealers)			
Electric 1	☐ Opaque (food processors, lumber mills, metal works, pigment plants) Floatables of industrial origin may include animal fats, spoiled foods, solvents, sawdust,			
Floatable Matter (Does	foams, packing materials, or fuel. Floatables in sanitary wastewater include fecal matter,			
not include	toilet paper, sanitary napkins, and condoms.			
litter)	□ None			
	☐ Sewage (toilet paper, etc.)			
	□ Suds □ Petroleum (oil sheen)			
	□ Other:			

Deposits and	Coatings,	residues or fragments of material may be indicators of a potential intermittent	
Stains within	non-stormwater discharge		
outfall	□ None		
	☐ Grayish-Black (leather tanneries)		
	☐ White crystalline powder (Nitrogenous fertilizers)		
	☐ Excessive sediments (construction sites)		
	☐ Oily res	sidues (petroleum refineries, storage facilities, vehicle service areas)	
	☐ Other:_		
Vegetation	As compa	red to surrounding Riparian bank and/or stream vegetation	
	☐ Norma		
	☐ Excessi	ve growth and/or algal presence (Food processing plants)	
	☐ Inhibite	ed Growth (Industrial operation effluent, CAFOs)	
of the water of vegetation surr	or no deposi counding ou ce, but <u>the</u> "	ns have been conducted and it was determined there was no odor, no discoloration its and stains left on the outfall, turbidity was clear, no floatable matter, and the tfall appears normal, then the dry weather discharge is likely from a groundwater 'Field Monitoring" section below must still be completed for verification.	
	_	analyses in Sections 5 & 6, the source may be traced back upstream in the storm I location by various methods, such as opening manholes, using a camera and/or performing dye tests or smoke tests.*	
SECTION 5: FIEL	D MONITO	RING	
Field c	alibrate ins	truments in accordance with manufacturer's instructions prior to testing.	
Estimated Dry Weather Flow Rate		The Tier A guidance document recommends taking the estimate flow rate during the physical observations. NO FLOW GPM	
Deterge	nts	Potential discharge types include sewage, washwater, industrial or commercial liquid waste	
Examples include and methylene b substances (olue active	Measurement: mg/L	
Temperatur	e of dry	Temperatures >70°F may indicate cooling water discharges depending on the season	
weather dis	-	Measurement:°F	
*Pro	*Proceed to Section 6 in accordance with the Guidance Document recommendations. *		
SECTION 6: DRY	WEATHER	FLOW ANALYSIS - WATER QUALITY	
sections, <u>further</u> parameters ar more inform	r testing mure re recomme ation, refer document ation of you	discharge types determined in the 'Physical Observation' and 'Field Monitoring' ust be conducted using the appropriate subset of parameters below. The following ended by the EPA for specific types of discharges as noted in the table below. For to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf). In measurements (e.g. outfall, manhole number, etc.):	

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	mg/L
Potassium	Sewage, industrial or commercial liquid waste	mg/L
Boron	>0.35 mg/L likely indicates sewage or washwater	mg/L
Chlorine	Industrial or commercial liquid waste	mg/L
Conductivity	Sewage, washwater, and industrial or commercial liquid waste	S/m
E. coli (FW & PL waters)**	>12,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
Enterococci (SC & SE1 waters)**	>5,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
Fecal Coliform (SE2 & SE3 waters)**	Sewage	Count/100 mL
Fluoride	Distinguishes potable water from natural or irrigation water	mg/L
pH of Dry Weather Discharge	Washwater	SU

^{**}The abbreviations FW, PL, SC, SE 1, SE2, and SE3 refer to the surface water quality classification of the receiving surface waterbody where the outfall discharges, as defined in N.J.A.C. 7:9B. FW=Freshwater, PL=Pinelands, SC=Saline Coastal, SE=Saline Estuary. Map coverage of these classifications is available on NJ-GeoWeb (https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d) using the layer under 'Water' of 'Surface Water Quality Classification.'

,	he dry weather flow is found, and any illicit discharge is nated.*
Based on the latest results from the investigation, inclu	uding the results in Sections 4, 5 and 6, is/was this dry
weather flow from an illicit connection?	☐ YES ■ NO ☐ INVESTIGATION IS ONGOING
If the investigation has been completed, what was the	source of the dry weather flow or illicit connection?

Describe the investigation, including the the illegal discharge, or conclude there winvestigation. Attach additional pages if the second secon	as no illicit discha	•	
No flow observed upon re-inspection. determined to be a concern for an illic		servations from the original inspec	tion were
SECTION 8: ILLICIT DISCHARGE ELIMINAT	rion		
If it was an illicit discharge, has the source	e been eliminated	1?	☐ YES ☐ NO
Describe the plan of action that was/will detail who is/was responsible for the disc		•	
took/will take, and how removal was/will	be confirmed an	d rechecked:	
SECTION 9: INSPECTOR INFORMATION			
Inspector's Name: CAITLIN GILVEY			
Title: PROGRAM ASSOCIATE	Affiliation: _	RCE WATER RESOURCES PROGRAM	
Signature: Caitlin Gilvey	Digitally signed by Caitlin Gilvey Date: 2023.10.25 09:15:53 -04'00'	Date: 10/25/2023	



Outfall ID: PN012 (6/6/2023)

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the <u>Tier A Guidance</u>

<u>Document</u>.

If a dry weather flow or other evidence of an intermittent illicit discharge is observed, this form shall be used to document the illicit discharge investigation in accordance with the current MS4 NJPDES Permit. This completed form shall be uploaded with the permittee's Annual Report and Certification and be kept with the permittee's SPPP as per the recordkeeping requirements of the permit. Initial illicit connection inspections must be performed during dry weather, which is at least 72 hours after the end of the previous precipitation or snowmelt event.

It is required to attach photos of the investigation to this form.

SECTION 1: PERMITTEE INFORMATION					
MS4 Permittee: Hamilton Township	NJP	NJPDES #: NJG0_ ¹⁵⁰²⁵⁸			
SECTION 2: OUTFALL SUMMARY INFORM	MATION				
*If this outfall is newly identi	ified, be sure to add it to your electron	ic outfall p	ipe map.ʾ	k	
Outfall ID: PN012 (formerly C0304)	Outfall Location Description: 83 Whitehall Road				
Municipality: Hamilton Township	County:	Mercer			
Receiving Waterbody: Pond Run					
Describe the type of conveyance(s) that d corrugated pipe, concrete channel, etc.): 18" diameter concrete pipe					
If the ultimate discharge into the receiving partially submerged?				ipe fully or * ALWAYS*	
*If 'Sometimes' or 'Always,' describe subr N/A	merged condition at time of inspec	tion:			
If the ultimate discharge into the receiving distance between the end of the last enclosers.): N/A	-	-			
Do any other NJPDES permittees discharg	e through this MS4 outfall?	☐ YES*	■ NO	□ UNKNOWN	
*If 'YES', list Permittee Name(s), NJPDES # _N/A	#(s), and Location of Connection:				
If 'YFS'. nle	ease contact vour MS4 Case Manac	ner.			

SECTION 3: OUT	FALL INSPECTION	
Date of current inspection: $\frac{8}{\sqrt{22}} / \frac{2023}{\sqrt{2023}}$		
Latest precipitat	ion/snowmelt event: $\frac{8}{2023}$ / $\frac{2023}{2023}$ Amount of Precipitation (in.): $\frac{0.29}{2023}$	
Date dry weathe	er flow or other evidence of an intermittent illicit discharge was first discovered: $\frac{6}{2023}$	
	of previous inspection(s) and describe the actions taken, if applicable:weather flow observed, added to list for sampling.	
SECTION 4: PHY	SICAL OBSERVATIONS	
-	either partially or fully submerged, dry weather flow observations must be made at the next ream point (e.g. manhole) above the influence of the receiving surface waterbody.	
If applicable: Mo	anhole ID: N/A Approximate distance upstream from outfall (ft.): N/A	
•	nall use the table below to describe 1) the observed dry weather flow and/or 2) when there if intermittent illicit discharges present.	
,	(Potential illicit discharge sources are listed in parentheses.)	
Odor	 □ None □ Sewage (stale/septic sanitary wastewater) □ Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) □ Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) □ Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) 	
	☐ Other:	
Color	 □ Clear □ Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) □ Gray (dairies, sewage) □ Yellow (chemical plants, textile and tanning plants) □ Red (meat packers) □ Other: 	
Turbidity	☐ Clear ☐ Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) ☐ Opaque (food processors, lumber mills, metal works, pigment plants)	
Floatable Matter (Does not include litter)	Floatables of industrial origin may include animal fats, spoiled foods, solvents, sawdust, foams, packing materials, or fuel. Floatables in sanitary wastewater include fecal matter, toilet paper, sanitary napkins, and condoms. None Sewage (toilet paper, etc.) Suds Petroleum (oil sheen)	

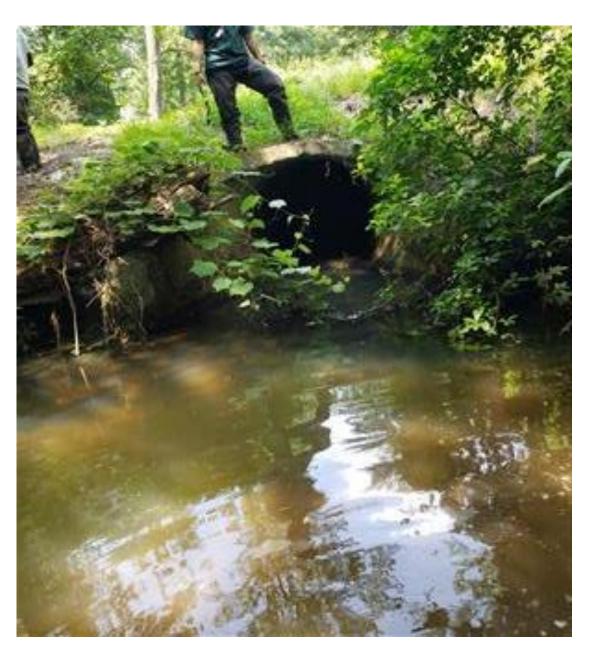
Deposits and	Coatings,	residues or fragments of material may be indicators of a potential intermittent	
Stains within	non-stormwater discharge		
outfall	□ None		
	☐ Grayish-Black (leather tanneries)		
	☐ White crystalline powder (Nitrogenous fertilizers)		
	☐ Excessi	ve sediments (construction sites)	
	☐ Oily res	sidues (petroleum refineries, storage facilities, vehicle service areas)	
	☐ Other:_		
Vegetation	As compa	red to surrounding Riparian bank and/or stream vegetation	
	☐ Norma		
	☐ Excessi	ve growth and/or algal presence (Food processing plants)	
	☐ Inhibite	ed Growth (Industrial operation effluent, CAFOs)	
of the water of vegetation surr	or no deposi counding ou ce, but <u>the</u> "	ns have been conducted and it was determined there was no odor, no discoloration its and stains left on the outfall, turbidity was clear, no floatable matter, and the tfall appears normal, then the dry weather discharge is likely from a groundwater 'Field Monitoring" section below must still be completed for verification.	
	_	analyses in Sections 5 & 6, the source may be traced back upstream in the storm I location by various methods, such as opening manholes, using a camera and/or performing dye tests or smoke tests.*	
SECTION 5: FIEL	D MONITO	RING	
Field c	alibrate ins	truments in accordance with manufacturer's instructions prior to testing.	
Estimated Dry Flow Ra		The Tier A guidance document recommends taking the estimate flow rate during the physical observations. NO FLOW GPM	
Deterge	nts	Potential discharge types include sewage, washwater, industrial or commercial liquid waste	
Examples include and methylene b substances (olue active	Measurement: mg/L	
Temperatur	e of dry	Temperatures >70°F may indicate cooling water discharges depending on the season	
weather dis	-	Measurement:°F	
*Proceed to Section 6 in accordance with the Guidance Document recommendations. *			
SECTION 6: DRY	WEATHER	FLOW ANALYSIS - WATER QUALITY	
sections, <u>further</u> parameters ar more inform	r testing mure re recomme ation, refer document ation of you	discharge types determined in the 'Physical Observation' and 'Field Monitoring' ust be conducted using the appropriate subset of parameters below. The following ended by the EPA for specific types of discharges as noted in the table below. For to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf). In measurements (e.g. outfall, manhole number, etc.):	

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	mg/L
Potassium	Sewage, industrial or commercial liquid waste	mg/L
Boron	>0.35 mg/L likely indicates sewage or washwater	mg/L
Chlorine	Industrial or commercial liquid waste	mg/L
Conductivity	Sewage, washwater, and industrial or commercial liquid waste	S/m
E. coli	>12,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
(FW & PL waters)**		
Enterococci	>5,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
(SC & SE1 waters)**		
Fecal Coliform	Sewage	Count/100 mL
(SE2 & SE3 waters)**		
Fluoride	Distinguishes potable water from natural or irrigation water	mg/L
pH of Dry Weather Discharge	Washwater	SU

^{**}The abbreviations FW, PL, SC, SE 1, SE2, and SE3 refer to the surface water quality classification of the receiving surface waterbody where the outfall discharges, as defined in N.J.A.C. 7:9B. FW=Freshwater, PL=Pinelands, SC=Saline Coastal, SE=Saline Estuary. Map coverage of these classifications is available on NJ-GeoWeb (https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d) using the layer under 'Water' of 'Surface Water Quality Classification.'

,	e of the dry weather flow is found, and any illicit discharge is liminated.*
Based on the latest results from the investigation,	including the results in Sections 4, 5 and 6, is/was this dry
weather flow from an illicit connection?	☐ YES ■ NO ☐ INVESTIGATION IS ONGOING
If the investigation has been completed, what was N/A	the source of the dry weather flow or illicit connection?

Describe the investigation, including the	e methods that were,	/will be used to identify the suspe	cted source of	
the illegal discharge, or conclude there was no illicit discharge, along with the timeline of the steps of the				
investigation. Attach additional pages i	f necessary.			
No flow observed upon re-inspection	n. None of the obse	rvations from the original inspec	ction were	
determined to be a concern for an ill				
SECTION 8: ILLICIT DISCHARGE ELIMINA	ATION			
If it was an illicit discharge, has the sour	rce been eliminated?		☐ YES ☐ NO	
Describe the plan of action that was/wi	II he followed to elim	inate the illicit connection. This n	lan should	
detail who is/was responsible for the di		•		
took/will take, and how removal was/w	<u> </u>		_	
	 -		 	
			·	
SECTION 9: INSPECTOR INFORMATION				
Inspector's Name: CAITLIN GILVEY				
Title: PROGRAM ASSOCIATE	Affiliation: RC	CE WATER RESOURCES PROGRAM		



Outfall ID: PN016 (6/6/2023)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the <u>Tier A Guidance</u>

<u>Document</u>.

If a dry weather flow or other evidence of an intermittent illicit discharge is observed, this form shall be used to document the illicit discharge investigation in accordance with the current MS4 NJPDES Permit. This completed form shall be uploaded with the permittee's Annual Report and Certification and be kept with the permittee's SPPP as per the recordkeeping requirements of the permit. Initial illicit connection inspections must be performed during dry weather, which is at least 72 hours after the end of the previous precipitation or snowmelt event.

It is required to attach photos of the investigation to this form.

Illicit discharges must be reported immediately to the NJDEP Hotline at 1-877-WARNDEP (1-877-927-6337).

SECTION 1: PERMITTEE INFORMATION		
MS4 Permittee: Hamilton Township NJPDES #: NJG0 150258		
SECTION 2: OUTFALL SUMMARY INFORMA	ATION	
If this outfall is newly identifi	ied, be sure to add it to your electronic outfall pipe map.	
Outfall ID: PN016 (previously D0317)	Outfall Location Description: 21 Rivulet Way	
Municipality: Hamilton Township	County: Mercer	
Receiving Waterbody: Pond Run		
Describe the type of conveyance(s) that decorrugated pipe, concrete channel, etc.):48" diameter concrete pipe		
If the ultimate discharge into the receiving partially submerged?	g water is from an enclosed pipe , is the end of the pipe fully or ☐ NEVER ☐ SOMETIMES* ■ ALWAYS*	
*If 'Sometimes' or 'Always,' describe subm Partially Submerged in standing water		
	g water is not from an enclosed pipe , what is the approximate osed stormwater conveyance pipe to the receiving waterbody	
Do any other NJPDES permittees discharge	e through this MS4 outfall? ☐ YES* ■ NO ☐ UNKNOWN	
*If 'YES', list Permittee Name(s), NJPDES #((s), and Location of Connection:	
If 'YES'. plea	ase contact your MS4 Case Manager.	

SECTION 3: OUT	FALL INSPECTION	
Date of current inspection: $\frac{8}{22} / \frac{2023}{2023}$		
Latest precipitat	ion/snowmelt event: $\frac{8}{}$ / $\frac{18}{}$ / $\frac{2023}{}$ Amount of Precipitation (in.): $\frac{0.29}{}$	
Date dry weathe	er flow or other evidence of an intermittent illicit discharge was first discovered: $\frac{6}{2023}$	
	of previous inspection(s) and describe the actions taken, if applicable: picious properties identified, added to list for sampling.	
SECTION 4: PHY	SICAL OBSERVATIONS	
-	either partially or fully submerged, dry weather flow observations must be made at the next ream point (e.g. manhole) above the influence of the receiving surface waterbody.	
If applicable: Mo	anhole ID: N/A Approximate distance upstream from outfall (ft.): N/A	
•	nall use the table below to describe 1) the observed dry weather flow and/or 2) when there of intermittent illicit discharges present.	
	(Potential illicit discharge sources are listed in parentheses.)	
Odor	 □ None □ Sewage (stale/septic sanitary wastewater) □ Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) □ Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) □ Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) 	
Color	☐ Other: ☐ Clear ☐ Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) ☐ Gray (dairies, sewage) ☐ Yellow (chemical plants, textile and tanning plants) ☐ Red (meat packers)	
Turbidity	☐ Other: ☐ Clear ☐ Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) ☐ Opaque (food processors, lumber mills, metal works, pigment plants)	
Floatable Matter (Does not include litter)	Floatables of industrial origin may include animal fats, spoiled foods, solvents, sawdust, foams, packing materials, or fuel. Floatables in sanitary wastewater include fecal matter, toilet paper, sanitary napkins, and condoms. None Sewage (toilet paper, etc.) Suds Petroleum (oil sheen)	

Deposits and	Coatings,	residues or fragments of material may be indicators of a potential intermittent	
Stains within	non-stormwater discharge		
outfall	□ None		
	☐ Grayish-Black (leather tanneries)		
	☐ White crystalline powder (Nitrogenous fertilizers)		
	☐ Excessi	ve sediments (construction sites)	
	☐ Oily res	sidues (petroleum refineries, storage facilities, vehicle service areas)	
	☐ Other:_		
Vegetation	As compa	red to surrounding Riparian bank and/or stream vegetation	
	☐ Norma		
	☐ Excessi	ve growth and/or algal presence (Food processing plants)	
	☐ Inhibite	ed Growth (Industrial operation effluent, CAFOs)	
of the water of vegetation surr	or no deposi counding ou ce, but <u>the</u> "	ns have been conducted and it was determined there was no odor, no discoloration its and stains left on the outfall, turbidity was clear, no floatable matter, and the tfall appears normal, then the dry weather discharge is likely from a groundwater 'Field Monitoring" section below must still be completed for verification.	
	_	analyses in Sections 5 & 6, the source may be traced back upstream in the storm I location by various methods, such as opening manholes, using a camera and/or performing dye tests or smoke tests.*	
SECTION 5: FIEL	D MONITO	RING	
Field c	alibrate ins	truments in accordance with manufacturer's instructions prior to testing.	
Estimated Dry Flow Ra		The Tier A guidance document recommends taking the estimate flow rate during the physical observations. NO FLOW GPM	
Deterge	nts	Potential discharge types include sewage, washwater, industrial or commercial liquid waste	
Examples include and methylene b substances (olue active	Measurement: mg/L	
Temperatur	e of dry	Temperatures >70°F may indicate cooling water discharges depending on the season	
weather dis	-	Measurement:°F	
*Proceed to Section 6 in accordance with the Guidance Document recommendations. *			
SECTION 6: DRY	WEATHER	FLOW ANALYSIS - WATER QUALITY	
sections, <u>further</u> parameters ar more inform	r testing mure re recomme ation, refer document ation of you	discharge types determined in the 'Physical Observation' and 'Field Monitoring' ust be conducted using the appropriate subset of parameters below. The following ended by the EPA for specific types of discharges as noted in the table below. For to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf). In measurements (e.g. outfall, manhole number, etc.):	

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	mg/L
Potassium	Sewage, industrial or commercial liquid waste	mg/L
Boron	>0.35 mg/L likely indicates sewage or washwater	mg/L
Chlorine	Industrial or commercial liquid waste	mg/L
Conductivity	Sewage, washwater, and industrial or commercial liquid waste	S/m
E. coli	>12,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
(FW & PL waters)**		
Enterococci	>5,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
(SC & SE1 waters)**		
Fecal Coliform	Sewage	Count/100 mL
(SE2 & SE3 waters)**		
Fluoride	Distinguishes potable water from natural or irrigation water	mg/L
pH of Dry Weather Discharge	Washwater	SU

^{**}The abbreviations FW, PL, SC, SE 1, SE2, and SE3 refer to the surface water quality classification of the receiving surface waterbody where the outfall discharges, as defined in N.J.A.C. 7:9B. FW=Freshwater, PL=Pinelands, SC=Saline Coastal, SE=Saline Estuary. Map coverage of these classifications is available on NJ-GeoWeb (https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d) using the layer under 'Water' of 'Surface Water Quality Classification.'

,	e of the dry weather flow is found, and any illicit discharge is liminated.*
Based on the latest results from the investigation,	including the results in Sections 4, 5 and 6, is/was this dry
weather flow from an illicit connection?	☐ YES ■ NO ☐ INVESTIGATION IS ONGOING
If the investigation has been completed, what was N/A	the source of the dry weather flow or illicit connection?

	· · · · · · · · · · · · · · · · · · ·			
Describe the investigation, including the	e methods that were/w	η ill be used to identify the suspecte	ed source of	
the illegal discharge, or conclude there was no illicit discharge, along with the timeline of the steps of the				
investigation. Attach additional pages i	f necessary.			
No flow observed upon re-inspection	n. None of the observ	ations from the original inspection	on were	
determined to be a concern for an ill				
	-			
	·			
	·			
-				
SECTION 8: ILLICIT DISCHARGE ELIMINA	ATION			
If it was an illicit discharge, has the soul	rce been eliminated?		YES □ NO	
Describe the plan of action that was/wi	II be followed to elimin	ate the illicit connection. This plar	າ should	
detail who is/was responsible for the di		•		
took/will take, and how removal was/w			_	
				
SECTION 9: INSPECTOR INFORMATION				
Inspector's Name: CAITLIN GILVEY				
Title: PROGRAM ASSOCIATE	Affiliation RCE	WATER RESOURCES PROGRAM		
	/			



Outfall ID: PN023 (6/9/2023)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the <u>Tier A Guidance</u>

<u>Document</u>.

If a dry weather flow or other evidence of an intermittent illicit discharge is observed, this form shall be used to document the illicit discharge investigation in accordance with the current MS4 NJPDES Permit. This completed form shall be uploaded with the permittee's Annual Report and Certification and be kept with the permittee's SPPP as per the recordkeeping requirements of the permit. Initial illicit connection inspections must be performed during dry weather, which is at least 72 hours after the end of the previous precipitation or snowmelt event.

It is required to attach photos of the investigation to this form.

Illicit discharges must be reported immediately to the NJDEP Hotline at 1-877-WARNDEP (1-877-927-6337).

SECTION 1: PERMITTEE INFORMATION				
MS4 Permittee: Hamilton Township NJPDES #: NJG0_150258			3	
SECTION 2: OUTFALL SUMMARY INFORM	IATION			
*If this outfall is newly identif	fied, be sure to add it to your electror	nic outfall p	ipe map. ٔ	k
Outfall ID: PN023 (formerly D0326)	Outfall Location Description: $\frac{21}{2}$	10 Whitehors	se Mercer	ville Rd
Municipality: Hamilton Township	County:_	Mercer		
Receiving Waterbody: Pond Run				
Describe the type of conveyance(s) that do corrugated pipe, concrete channel, etc.): _ 24" diameter concrete pipe		_		concrete or
If the ultimate discharge into the receiving partially submerged?			•	ipe fully or * ALWAYS*
*If 'Sometimes' or 'Always,' describe subn	nerged condition at time of inspec	ction:		
If the ultimate discharge into the receiving distance between the end of the last enclouding.	-	-	-	
Do any other NJPDES permittees discharge	e through this MS4 outfall?	☐ YES*	■ NO	□ UNKNOWN
*If 'YES', list Permittee Name(s), NJPDES #_N/A	t(s), and Location of Connection:			
*If 'VFC' nlo	ase contact your MS4 Case Manag	ner *		

SECTION 3: OUT	FALL INSPECTION	
Date of current inspection: $\frac{8}{\sqrt{22}} / \frac{2023}{\sqrt{2023}}$		
Latest precipitat	ion/snowmelt event: $\frac{8}{2023}$ / $\frac{2023}{2023}$ Amount of Precipitation (in.): $\frac{0.29}{2023}$	
Date dry weathe	er flow or other evidence of an intermittent illicit discharge was first discovered: $\frac{6}{2}$	
	of previous inspection(s) and describe the actions taken, if applicable:	
SECTION 4: PHY	SICAL OBSERVATIONS	
•	either partially or fully submerged, dry weather flow observations must be made at the next ream point (e.g. manhole) above the influence of the receiving surface waterbody.	
If applicable: Mo	anhole ID: N/A Approximate distance upstream from outfall (ft.): N/A	
•	nall use the table below to describe 1) the observed dry weather flow and/or 2) when there if intermittent illicit discharges present.	
	(Potential illicit discharge sources are listed in parentheses.)	
Odor	 □ None □ Sewage (stale/septic sanitary wastewater) □ Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) □ Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) □ Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) 	
	☐ Other:	
Color	 □ Clear □ Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) □ Gray (dairies, sewage) □ Yellow (chemical plants, textile and tanning plants) □ Red (meat packers) □ Other: 	
Turbidity	☐ Clear ☐ Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) ☐ Opaque (food processors, lumber mills, metal works, pigment plants)	
Floatable Matter (Does not include litter)	Floatables of industrial origin may include animal fats, spoiled foods, solvents, sawdust, foams, packing materials, or fuel. Floatables in sanitary wastewater include fecal matter, toilet paper, sanitary napkins, and condoms. None Sewage (toilet paper, etc.) Suds Petroleum (oil sheen)	

Stains within outfall non-stormwater discharge □ None □ Grayish-Black (leather tanneries) □ White crystalline powder (Nitrogenous fertilizers) □ Excessive sediments (construction sites) □ Oily residues (petroleum refineries, storage facilities, vehicle service areas) □ Other: Vegetation As compared to surrounding Riparian bank and/or stream vegetation			
☐ Grayish-Black (leather tanneries) ☐ White crystalline powder (Nitrogenous fertilizers) ☐ Excessive sediments (construction sites) ☐ Oily residues (petroleum refineries, storage facilities, vehicle service areas) ☐ Other:			
 □ White crystalline powder (Nitrogenous fertilizers) □ Excessive sediments (construction sites) □ Oily residues (petroleum refineries, storage facilities, vehicle service areas) □ Other: 			
 □ Excessive sediments (construction sites) □ Oily residues (petroleum refineries, storage facilities, vehicle service areas) □ Other: 			
☐ Oily residues (petroleum refineries, storage facilities, vehicle service areas) ☐ Other:			
☐ Other:			
□ Normal			
☐ Excessive growth and/or algal presence (Food processing plants)			
☐ Inhibited Growth (Industrial operation effluent, CAFOs)			
*If the Physical Observations have been conducted and it was determined there was no odor, no discoloration of the water or no deposits and stains left on the outfall, turbidity was clear, no floatable matter, and the vegetation surrounding outfall appears normal, then the dry weather discharge is likely from a groundwater source, but the "Field Monitoring" section below must still be completed for verification.			
Prior to conducting the analyses in Sections 5 & 6, the source may be traced back upstream in the storm sewer to a more definitive location by various methods, such as opening manholes, using a camera and/or performing dye tests or smoke tests.*			
SECTION 5: FIELD MONITORING			
Field calibrate instruments in accordance with manufacturer's instructions prior to testing.			
Flow Rate The Tier A guidance document recommends taking the estimate flow rate during the physical observations. NO FLOW GPM			
Detergents Potential discharge types include sewage, washwater, industrial or commercial liquid waste			
Examples include surfactants and methylene blue active substances (MBAS) Measurement: mg/L			
Temperature of dry Temperatures >70°F may indicate cooling water discharges depending on the season			
weather discharge Measurement:°F			
*Proceed to Section 6 in accordance with the Guidance Document recommendations. *			
SECTION 6: DRY WEATHER FLOW ANALYSIS - WATER QUALITY			
* Based on the potential discharge types determined in the 'Physical Observation' and 'Field Monitoring' sections, further testing must be conducted using the appropriate subset of parameters below. The following parameters are recommended by the EPA for specific types of discharges as noted in the table below. For more information, refer to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance document (https://www3.epa.gov/npdes/pubs/idde manualwithappendices.pdf). Indicate the location of your measurements (e.g. outfall, manhole number, etc.): N/A			

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	mg/L
Potassium	Sewage, industrial or commercial liquid waste	mg/L
Boron	>0.35 mg/L likely indicates sewage or washwater	mg/L
Chlorine	Industrial or commercial liquid waste	mg/L
Conductivity	Sewage, washwater, and industrial or commercial liquid waste	S/m
E. coli (FW & PL waters)**	>12,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
Enterococci (SC & SE1 waters)**	>5,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
Fecal Coliform (SE2 & SE3 waters)**	Sewage	Count/100 mL
Fluoride	Distinguishes potable water from natural or irrigation water	mg/L
pH of Dry Weather Discharge	Washwater	SU

^{**}The abbreviations FW, PL, SC, SE 1, SE2, and SE3 refer to the surface water quality classification of the receiving surface waterbody where the outfall discharges, as defined in N.J.A.C. 7:9B. FW=Freshwater, PL=Pinelands, SC=Saline Coastal, SE=Saline Estuary. Map coverage of these classifications is available on NJ-GeoWeb (https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d) using the layer under 'Water' of 'Surface Water Quality Classification.'

,	he dry weather flow is found, and any illicit discharge is nated.*
Based on the latest results from the investigation, inclu	uding the results in Sections 4, 5 and 6, is/was this dry
weather flow from an illicit connection?	☐ YES ■ NO ☐ INVESTIGATION IS ONGOING
If the investigation has been completed, what was the	source of the dry weather flow or illicit connection?

Describe the investigation, including the the illegal discharge, or conclude there w	as no illicit discharg	•		
nvestigation. Attach additional pages if necessary.				
No evidence of illicit discharge was de	etected.			
CECTION O. ILLICIT DISCUADOS FUNDINA	FION			
SECTION 8: ILLICIT DISCHARGE ELIMINAT	ION			
If it was an illicit discharge, has the source	e been eliminated?		☐ YES ☐ NO	
Describe the plan of action that was/will be followed to eliminate the illicit connection. This plan should detail who is/was responsible for the discharge, what methods were/will be used to fix it, how long it				
took/will take, and how removal was/wil	•		_	
SECTION 9: INSPECTOR INFORMATION	-		-	
Inspector's Name: CAITLIN GILVEY				
Title: PROGRAM ASSOCIATE	Affiliation: Ro	CE WATER RESOURCES PROGRAM		
Signature: Caitlin Gilvey	Digitally signed by Caitlin Gilvey Date: 2023.10.26 12:02:18 -04'00'	Date: 10/26/2023		



Outfall ID: PN127 (6/21/2023)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the <u>Tier A Guidance</u>

<u>Document</u>.

If a dry weather flow or other evidence of an intermittent illicit discharge is observed, this form shall be used to document the illicit discharge investigation in accordance with the current MS4 NJPDES Permit. This completed form shall be uploaded with the permittee's Annual Report and Certification and be kept with the permittee's SPPP as per the recordkeeping requirements of the permit. Initial illicit connection inspections must be performed during dry weather, which is at least 72 hours after the end of the previous precipitation or snowmelt event.

It is required to attach photos of the investigation to this form.

Illicit discharges must be reported immediately to the NJDEP Hotline at 1-877-WARNDEP (1-877-927-6337).

SECTION 1: PERMITTEE INFORMATION				
AS4 Permittee: Hamilton Township NJPDES #: NJG0 150258			3	
SECTION 2: OUTFALL SUMMARY INFORM	MATION			
*If this outfall is newly identi	ified, be sure to add it to your electror	nic outfall p	ipe map.	k
Outfall ID: PN127	Outfall Location Description: 80 Sculptors Way			
Municipality: Hamilton Township	County:	Mercer		
Receiving Waterbody: Hamilton Lake		·		
Describe the type of conveyance(s) that d corrugated pipe, concrete channel, etc.): 34" diameter concrete pipe		_		
If the ultimate discharge into the receivin partially submerged?	• • •		•	ipe fully or * □ ALWAYS*
*If 'Sometimes' or 'Always,' describe subr	merged condition at time of inspec	ction:		
If the ultimate discharge into the receiving distance between the end of the last encl (ft.): N/A	-	-	-	=
Do any other NJPDES permittees discharg	ge through this MS4 outfall?	☐ YES*	■ NO	□ UNKNOWN
*If 'YES', list Permittee Name(s), NJPDES #	#(s), and Location of Connection:			
*If 'VFS' nla	ease contact your MS4 Case Mana	ner *		

SECTION 3: OUT	FALL INSPECTION				
Date of current inspection: $\frac{8}{22} / \frac{2023}{2023}$					
Latest precipitation/snowmelt event: $\frac{8}{2023}$ Amount of Precipitation (in.): $\frac{0.29}{2023}$					
Date dry weathe	er flow or other evidence of an intermittent illicit discharge was first discovered: $\frac{6}{21}$				
	List the date(s) of previous inspection(s) and describe the actions taken, if applicable:				
SECTION 4: PHY	SICAL OBSERVATIONS				
-	either partially or fully submerged, dry weather flow observations must be made at the next ream point (e.g. manhole) above the influence of the receiving surface waterbody.				
If applicable: Mo	anhole ID: N/A Approximate distance upstream from outfall (ft.): N/A				
•	nall use the table below to describe 1) the observed dry weather flow and/or 2) when there if intermittent illicit discharges present.				
	(Potential illicit discharge sources are listed in parentheses.)				
Odor	 □ None □ Sewage (stale/septic sanitary wastewater) □ Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) □ Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) □ Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) 				
	☐ Other:				
Color	 □ Clear □ Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) □ Gray (dairies, sewage) □ Yellow (chemical plants, textile and tanning plants) □ Red (meat packers) □ Other: 				
Turbidity	☐ Clear ☐ Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) ☐ Opaque (food processors, lumber mills, metal works, pigment plants)				
Floatable Matter (Does not include litter)	Floatables of industrial origin may include animal fats, spoiled foods, solvents, sawdust, foams, packing materials, or fuel. Floatables in sanitary wastewater include fecal matter, toilet paper, sanitary napkins, and condoms. None Sewage (toilet paper, etc.) Suds Petroleum (oil sheen)				

Stains within outfall non-stormwater discharge □ None □ Grayish-Black (leather tanneries) □ White crystalline powder (Nitrogenous fertilizers) □ Excessive sediments (construction sites) □ Oily residues (petroleum refineries, storage facilities, vehicle service areas) □ Other: Vegetation As compared to surrounding Riparian bank and/or stream vegetation			
☐ Grayish-Black (leather tanneries) ☐ White crystalline powder (Nitrogenous fertilizers) ☐ Excessive sediments (construction sites) ☐ Oily residues (petroleum refineries, storage facilities, vehicle service areas) ☐ Other:			
 □ White crystalline powder (Nitrogenous fertilizers) □ Excessive sediments (construction sites) □ Oily residues (petroleum refineries, storage facilities, vehicle service areas) □ Other: 			
 □ Excessive sediments (construction sites) □ Oily residues (petroleum refineries, storage facilities, vehicle service areas) □ Other: 			
☐ Oily residues (petroleum refineries, storage facilities, vehicle service areas) ☐ Other:			
☐ Other:			
□ Normal			
☐ Excessive growth and/or algal presence (Food processing plants)			
☐ Inhibited Growth (Industrial operation effluent, CAFOs)			
*If the Physical Observations have been conducted and it was determined there was no odor, no discoloration of the water or no deposits and stains left on the outfall, turbidity was clear, no floatable matter, and the vegetation surrounding outfall appears normal, then the dry weather discharge is likely from a groundwater source, but the "Field Monitoring" section below must still be completed for verification.			
Prior to conducting the analyses in Sections 5 & 6, the source may be traced back upstream in the storm sewer to a more definitive location by various methods, such as opening manholes, using a camera and/or performing dye tests or smoke tests.*			
SECTION 5: FIELD MONITORING			
Field calibrate instruments in accordance with manufacturer's instructions prior to testing.			
Flow Rate The Tier A guidance document recommends taking the estimate flow rate during the physical observations. NO FLOW GPM			
Detergents Potential discharge types include sewage, washwater, industrial or commercial liquid waste			
Examples include surfactants and methylene blue active substances (MBAS) Measurement: mg/L			
Temperature of dry Temperatures >70°F may indicate cooling water discharges depending on the season			
weather discharge Measurement:°F			
*Proceed to Section 6 in accordance with the Guidance Document recommendations. *			
SECTION 6: DRY WEATHER FLOW ANALYSIS - WATER QUALITY			
* Based on the potential discharge types determined in the 'Physical Observation' and 'Field Monitoring' sections, further testing must be conducted using the appropriate subset of parameters below. The following parameters are recommended by the EPA for specific types of discharges as noted in the table below. For more information, refer to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance document (https://www3.epa.gov/npdes/pubs/idde manualwithappendices.pdf). Indicate the location of your measurements (e.g. outfall, manhole number, etc.): N/A			

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	mg/L
Potassium	Sewage, industrial or commercial liquid waste	mg/L
Boron	>0.35 mg/L likely indicates sewage or washwater	mg/L
Chlorine	Industrial or commercial liquid waste	mg/L
Conductivity	Sewage, washwater, and industrial or commercial liquid waste	S/m
E. coli (FW & PL waters)**	>12,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
Enterococci (SC & SE1 waters)**	>5,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
Fecal Coliform (SE2 & SE3 waters)**	Sewage	Count/100 mL
Fluoride	Distinguishes potable water from natural or irrigation water	mg/L
pH of Dry Weather Discharge	Washwater	SU

^{**}The abbreviations FW, PL, SC, SE 1, SE2, and SE3 refer to the surface water quality classification of the receiving surface waterbody where the outfall discharges, as defined in N.J.A.C. 7:9B. FW=Freshwater, PL=Pinelands, SC=Saline Coastal, SE=Saline Estuary. Map coverage of these classifications is available on NJ-GeoWeb (https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d) using the layer under 'Water' of 'Surface Water Quality Classification.'

,	he dry weather flow is found, and any illicit discharge is nated.*
Based on the latest results from the investigation, inclu	uding the results in Sections 4, 5 and 6, is/was this dry
weather flow from an illicit connection?	☐ YES ■ NO ☐ INVESTIGATION IS ONGOING
If the investigation has been completed, what was the	source of the dry weather flow or illicit connection?

Describe the investigation, including the the illegal discharge, or conclude there investigation. Attach additional pages if	was no illicit disch	•	
No evidence of illicit discharge was o	·		
			
			· · · · · · · · · · · · · · · · · · ·
· 			
			<u></u> .
			····
SECTION 8: ILLICIT DISCHARGE ELIMINA	ATION		
If it was an illicit discharge, has the sour	ce been eliminate	d?	□ YES □ NO
Describe the plan of action that was/will be followed to eliminate the illicit connection. This plan should detail who is/was responsible for the discharge, what methods were/will be used to fix it, how long it took/will take, and how removal was/will be confirmed and rechecked:			
			 -
SECTION 9: INSPECTOR INFORMATION			
Inspector's Name: CAITLIN GILVEY			
Title: PROGRAM ASSOCIATE	Affiliation:	RCE WATER RESOURCES PROGRAM	
Signature: Caitlin Gilvey	Digitally signed by Caitlin Gilvey Date: 2023.10.26 17:35:35 -04'00'	Date: 10/26/2023	