RUTGERS UNIVERSITY
Water Resources Program
New Jersey Agricultural Experiment Station

Hamilton Township (Mercer County)

ILLICIT DISCHARGE INVESTIGATION 2024

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

September 19, 2024

Acknowledgements

The Hamilton Township (Mercer County) Illicit Discharge Investigation 2024 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.

Contents

Introduction

The Rutgers Cooperative Extension (RCE) Water Resources Program collected samples from twelve outfall sites in Hamilton Township, Mercer County, New Jersey in August 2024 that exhibited dry weather flow. These twelve outfall sites were part of a larger group of seventeen outfalls that were identified as being potential illicit discharges based on visual inspections conducted during the regular outfall inspections of Region 3 (the south branch of the Pond Run subwatershed, the Shady Brook subwatershed, and the Ducks Creek subwatershed) during the summer of 2024 (Figure 1). 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 seventeen outfalls were revisited and reinspected for evidence of illicit discharge on August 14, 2024. Twelve 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 seventeen outfalls (See Attachment 2).

For the twelve outfalls found to be flowing on August 14, 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).

Hamilton Outfall Region 3: Potential Illicit Discharges in Pond Run South

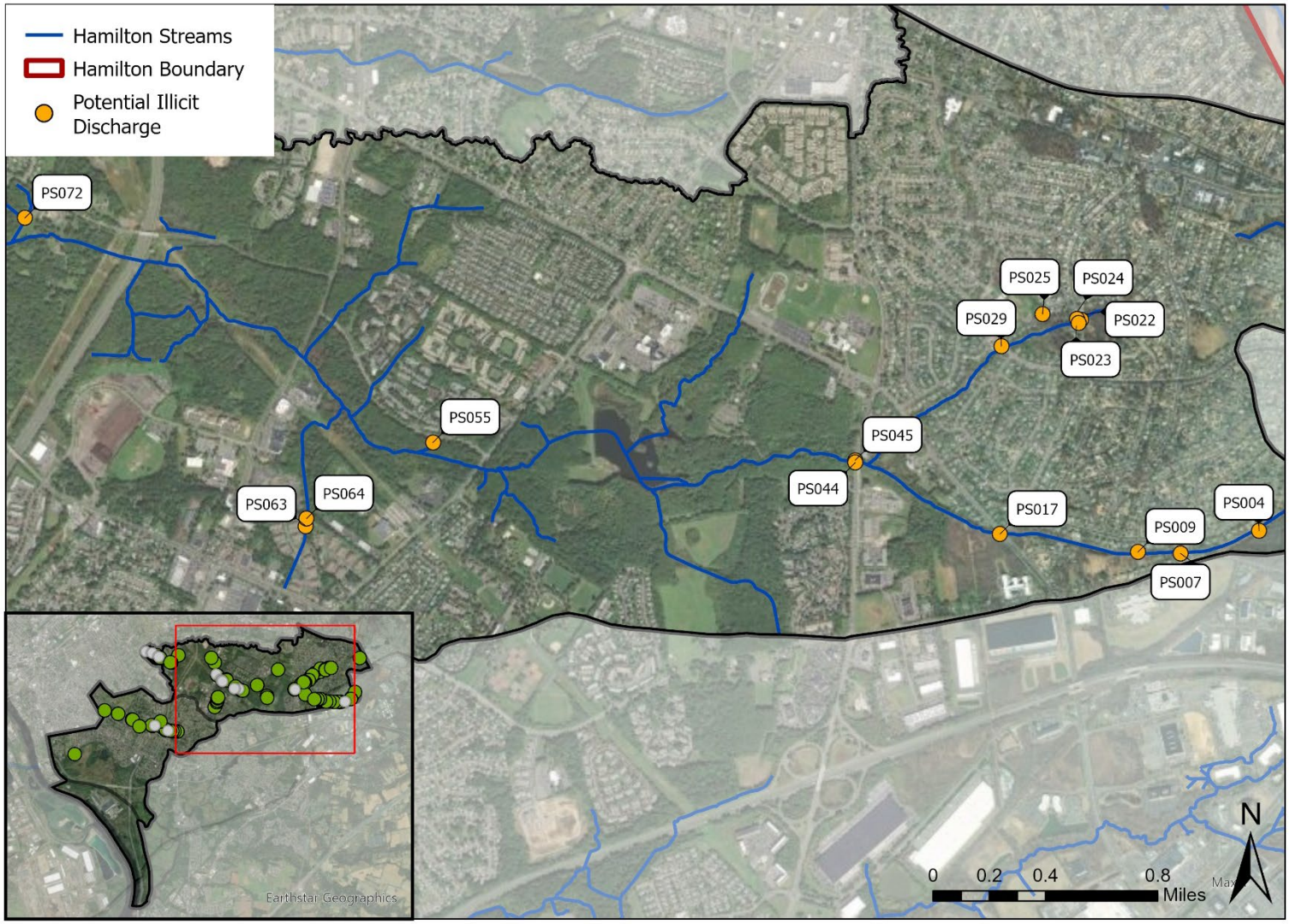


Figure 1: Hamilton Township outfall sampling sites Region 3 (Pond Run South), August 2024

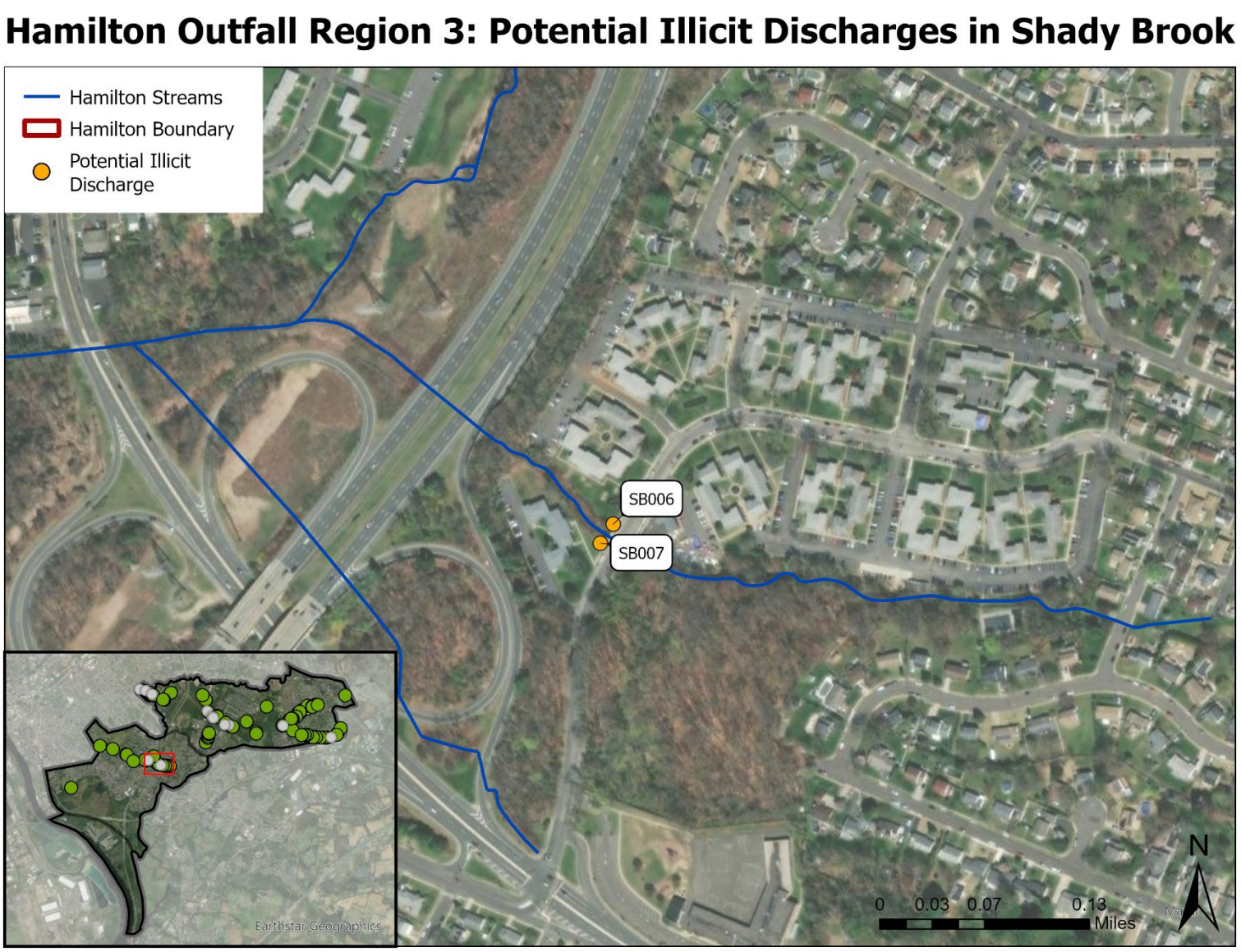


Figure 2: Hamilton Township outfall sampling sites Region 3 (Shady Brook), August 2024

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 NH_3:K	Fluoride (mg/L)	Estimated Flow Rate GPM	Illicit Discharge (Y/N)
PS007	B0505	8/14/2024	2:00 PM	71.6	ND	ND	ND	0.10	<0.10	0.75	N
PS009	B0507	8/14/2024	1:47 PM	72.7	ND	ND	ND	0.10	<0.10	0.50	N
PS017	N/A	8/14/2024	1:30 PM	75.4	ND	0.47	ND	0.24	<0.10	0.47	N
PS023	B0412	8/14/2024	12:30 PM	71.6	ND	ND	4.42	0.05	<0.10	0.13	N
PS024	B0411	8/14/2024	12:27 PM	72.6	ND	ND	4.14	0.05	<0.10	1.90	N
PS029	B0401	8/14/2024	12:01 PM	73.4	ND	ND	4.08	0.05	<0.10	0.08	N
PS044	C0406	8/14/2024	11:33 AM	68.6	ND	ND	4.18	0.05	0.17	0.50	N
PS055	D0410	8/14/2024	11:06 AM	70.9	ND	ND	6.26	0.03	<0.10	1	N
PS063	N/A	8/14/2024	10:34 AM	74.2	ND	1.62	5.44	0.30	<0.10	N/A	N
PS064	N/A	8/14/2024	10:49 AM	71.3	ND	0.88	7.83	0.11	<0.10	1.25	N
SB006	N/A	8/14/2024	2:42 PM	76.7	ND	ND	ND	0.10	<0.10	0.75	N
SB007	F0408	8/14/2024	2:37 PM	66.0	ND	ND	ND	0.10	<0.10	4.5	N
PS004	N/A	Not Sampled		N/A							
PS022	B0410	Not Sampled		N/A							
PS025	B0407	Not Sampled		N/A							
PS045	C0405	Not Sampled		N/A							
PS072	N/A	Not Sampled		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, none of the samples had detectible surfactant concentrations.

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 ammonia as N and/or potassium was reported as not detected (ND), half the reporting detection limit (RDL) was used to calculate the ratio. In the case of all outfalls sampled this year, no surfactants were detected, illustrating that the dry weather flows observed are most likely not from a sanitary wastewater or a sanitary washwater source.

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 than 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 14, 2024, was reported as 74.0°F at the Trenton Mercer Airport in Ewing, NJ. Outfall PS007's drainage comes from a school, and Outfalls PS009, PS017, PS023, PS024, PS029, PS055, PS063, PS064, and SB006 drain primarily from residential areas 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 no reason to suspect illicit discharges at any of the outfalls sampled on August 14, 2024.

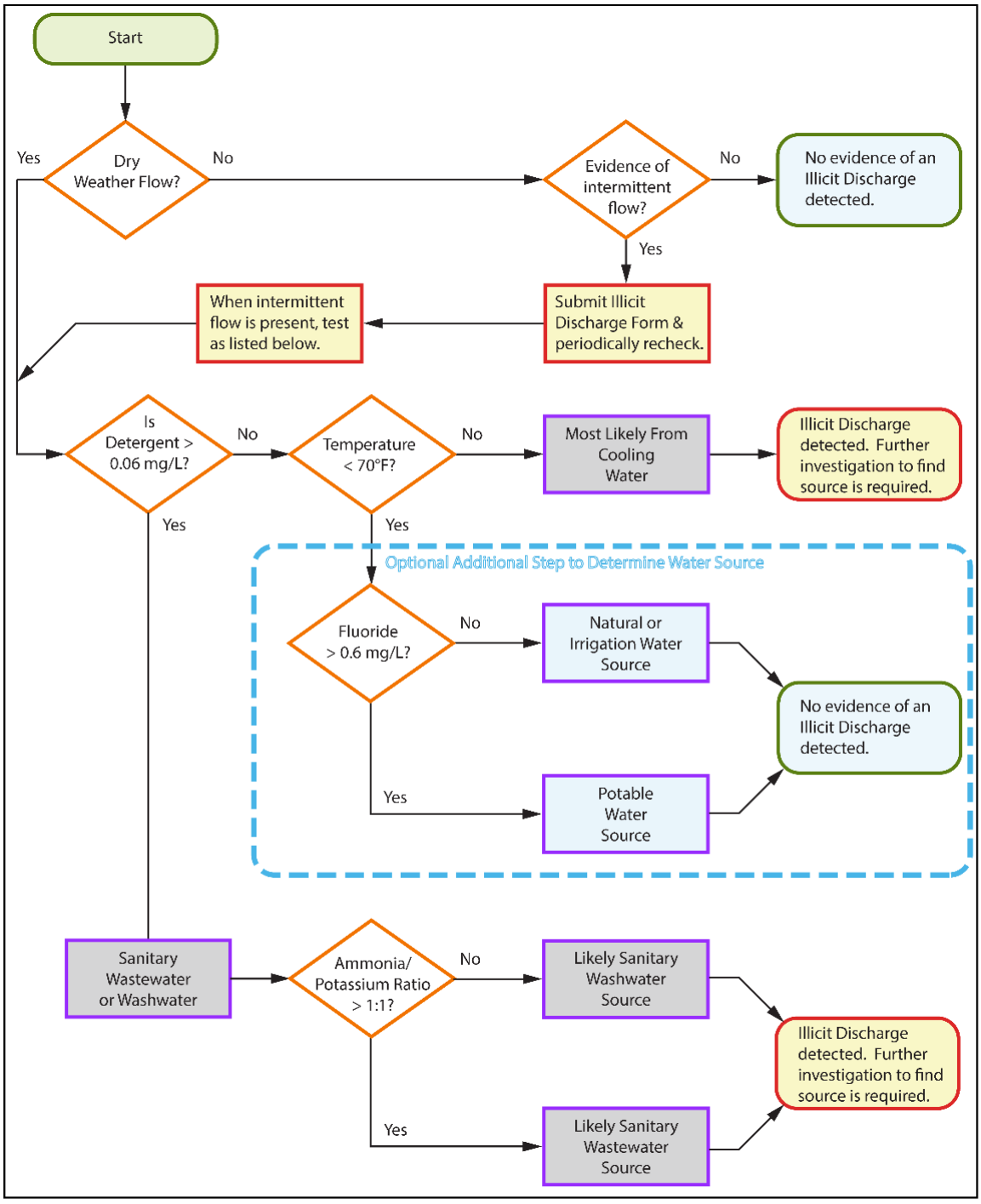


Figure 3: Illicit discharge identification flow chart, NJDEP 2018

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 ºN, 74.68 ºW, August 22, 2023. https://www.wunderground.com/history/daily/us/nj/ewing/KTTN/date/2023-8-22

Attachment 1: Initial Inspection Table

Suspected Illicit Discharge

Outfall ID	OLD ID	Odor	Color	Turbidity	Floatables	Deposits or Stains	Adjacent Vegetation (compared to other areas)	Notes	Overall Priority
PS004		None	Brown	Cloudy	Other	White crystalline	Normal	White crystalline discharge and cracking around the outfall pipe.	2
PS007	B0505	None	Clear	Clear	None	None	Normal	Repaired w/ riprap, [Sampled]	2
PS009	B0507	None	Clear	Clear	None	None	Normal	The head wall attachment is started to crumble and crack.	3
PS017		None	Brown	Opaque	None	Other	Normal	An orange discharge coming out from the outfall	3
PS022	B0410	None	Clear	Clear	None	None	Normal	Blocked off by bricks, water still flowing through.	2
PS023	B0412	None	Clear	Clear	None	Other	Excessive gowth or algal growth	Orange algae at the base of the outfall	3
PS024	B0411	None	Clear	Clear	None	None	Normal	pipe starting to be undermined from erosion	3
PS025	B0407	None	Clear	Cloudy	None	Other	Normal		3
PS029	B0401	None	Clear	Cloudy	None	None	Normal		2
PS044	C0406	None	Clear	Clear	None	None	Normal		2
PS045	C0405	None		Clear	None	None	Normal	Major crack in bottom of pipe, needs repair	4
PS055	D0410	None	Cloudy	Clear	Other	Oily residues	Normal	white/silver sheen floating on surface directly from pipe	2
PS063		None	Cloudy	Cloudy	Other	Other	Normal	Buildup of orange textured floatables	4
PS064		None	Yellow	Cloudy	Suds	Other	Normal	Yellow/orange staining and suds	4
PS072		None	Clear	Clear	Clear	Excessive sediments	Normal	Sediment build up in the pipe and in front of outfall. Outfall head can be seen separating from the pipe	3
SB006		Sulfide	Clear	Clear	Clear	None	Normal		2
SB007	F0408	None	Clear	Clear	Clear	None	Normal	cracking/erosion under outfall pipe; there is a pipe next to outfall that is continuously spewing water	2

Attachment 2: 2024 Illicit Connection Visual Inspection Reports

Outfall ID: PS004 (6/10/2024)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: PS004 Outfall Location Description: 67 Peter Rafferty Drive

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Pond Run

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

Concrete Pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☐ NEVER ☐ SOMETIMES* ☒ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

Partially submerged in standing water

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☒ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 10 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable: 6/10/2024: Suspicious properties identified, added to list for sampling

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ☐ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. NO FLOW _____ GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: _____ mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: N/A °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, no flow upon re-inspection

_____

_____

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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

N/A

Describe the investigation, including the methods that were/will be used to identify the suspected 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.

No flow observed upon re-inspection.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024

Outfall ID: PS007 (6/10/2024)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: PS007 (previously B0505) Outfall Location Description: 2642 Kuser Road

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Pond Run

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

16" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☐ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

N/A

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ■ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 10 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable: 6/10/2024: dry weather flow observed, added to list for further sampling; erosion reported and repaired with riprap 8/13/2015

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ☒ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 0.75 GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: ND-NOT DETECTED mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: 71.6 °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.): _____

Outfall

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	ND-NOT DETECTED mg/L
Potassium	Sewage, industrial or commercial liquid waste	ND-NOT DETECTED 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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

The source of the dry weather flow is natural or irrigation water, no evidence of illicit discharge detected.

Describe the investigation, including the methods that were/will be used to identify the suspected 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 were tested on 8/15/2024, potassium was tested on 8/30.2024, ammonia was tested on 8/28/2024, and fluoride were tested 8/26/2024. None of these parameters were indicative of illicit discharge sources and the temperature of the water is within a reasonable range for the time of year that sampling was conducted.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024

Outfall ID: PS009 (6/10/2024)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: PS009 (previously B0507) Outfall Location Description: 33 Peter Rafferty Drive

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Pond Run

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

48" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☒ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

N/A

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☒ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 10 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable:

6/10/2024: dry weather flow observed, added to list for further sampling.
8/13/2015

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ▣ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 0.5 GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: ND-NOT DETECTED mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: 72.7 °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.): _____

Outfall

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	ND-NOT DETECTED mg/L
Potassium	Sewage, industrial or commercial liquid waste	ND-NOT DETECTED 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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

The source of the dry weather flow is natural or irrigation water, no evidence of illicit discharge detected.

Describe the investigation, including the methods that were/will be used to identify the suspected 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 were tested on 8/15/2024, potassium was tested on 8/30.2024, ammonia was tested on 8/28/2024, and fluoride were tested 8/26/2024. None of these parameters were indicative of illicit discharge sources and the temperature of the water is within a reasonable range for the time of year that sampling was conducted.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024

Outfall ID: PS017 (6/14/2024)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: PS017 Outfall Location Description: Klockner Road & George Dye Road

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Pond Run

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

22" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☒ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

N/A

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☒ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 14 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable: 06/14/2024: Suspicious properties identified, added to list for sampling

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ▣ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 0.47 GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: ND-NOT DETECTED mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: 75.4 °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.): _____

Outfall

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	0.470 mg/L
Potassium	Sewage, industrial or commercial liquid waste	ND-NOT DETECTED 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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

The source of the dry weather flow is natural or irrigation water, no evidence of illicit discharge detected.

Describe the investigation, including the methods that were/will be used to identify the suspected 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 were tested on 8/15/2024, potassium was tested on 8/30.2024, ammonia was tested on 8/28/2024, and fluoride were tested 8/25/2024. None of these parameters were indicative of illicit discharge sources and the temperature of the water is within a reasonable range for the time of year that sampling was conducted.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024

Outfall ID: PS022 (6/10/2024)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: PS022 (previously B0410) Outfall Location Description: 305 George Dye Road

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Pond Run

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

24" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☒ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

N/A

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☒ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 10 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable:

06/10/2024: dry weather flow observed, added to list for further sampling.
08/13/2015

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ☐ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. NO FLOW _____ GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: _____ mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: N/A °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, No flow upon re-inspection

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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

N/A

Describe the investigation, including the methods that were/will be used to identify the suspected 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.

No flow observed upon re-inspection. None of the observations from the original inspection were determined to be a concern for an illicit connection.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024

Outfall ID: PS023 (6/10/2024)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: PS023 (previously B0412) Outfall Location Description: 305 George Dye Road

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Pond Run

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

36" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☒ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

N/A

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☒ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 10 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable:

06/10/2024: Suspicious properties identified, added to list for sampling
08/13/15

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ▣ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 0.13 GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: ND-NOT DETECTED mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: 71.6 °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.): _____

Outfall

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	ND-NOT DETECTED mg/L
Potassium	Sewage, industrial or commercial liquid waste	4.42 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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

The source of the dry weather flow is natural or irrigation water, no evidence of illicit discharge detected.

Describe the investigation, including the methods that were/will be used to identify the suspected 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 were tested on 8/15/2024, potassium was tested on 8/30.2024, ammonia was tested on 8/28/2024, and fluoride were tested 8/25/2024. None of these parameters were indicative of illicit discharge sources and the temperature of the water is within a reasonable range for the time of year that sampling was conducted.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024

Outfall ID: PS024 (8/22/2023)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: PS024 (previously B0411) Outfall Location Description: 305 George Dye Road

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Pond Run

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

32" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☒ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

N/A

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☒ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 10 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable: 06/10/2024: dry weather flow observed, added to list for further sampling.

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ☐ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 1.9 GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: ND-NOT DETECTED mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: 72.6 °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.): _____

Outfall

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	ND-NOT DETECTED mg/L
Potassium	Sewage, industrial or commercial liquid waste	4.14 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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

The source of the dry weather flow is natural or irrigation water, no evidence of illicit discharge detected.

Describe the investigation, including the methods that were/will be used to identify the suspected 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 were tested on 8/15/2024, potassium was tested on 8/30.2024, ammonia was tested on 8/28/2024, and fluoride were tested 8/25/2024. None of these parameters were indicative of illicit discharge sources and the temperature of the water is within a reasonable range for the time of year that sampling was conducted.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024

Outfall ID: PS025 (6/10/2024)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: PS025 (previously B0407) Outfall Location Description: 80 Carl Sandburg Drive

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Pond Run

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

76" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☒ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

N/A

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☒ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 10 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable: 6/10/2024: Suspicious properties identified, added to list for sampling. 8/13/2015

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ☐ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. NO FLOW _____ GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: _____ mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: N/A °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, No flow upon re-inspection

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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

N/A

Describe the investigation, including the methods that were/will be used to identify the suspected 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.

No flow observed upon re-inspection. Observations from the original inspection were determined to not be a concern for an illicit connection.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024

Outfall ID: PS029 (6/10/2024)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: PS029 (previously B0401) Outfall Location Description: 1069 Estates Boulevard

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Pond Run

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

40" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☐ NEVER ☐ SOMETIMES* ☒ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

Partially submerged in standing water

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☒ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 10 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable: 6/10/2024: Suspicious properties identified, added to list for sampling. 8/13/2015

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ☒ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 0.083 GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: ND-NOT DETECTED mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: 73.4 °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.): _____

Outfall

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	ND-NOT DETECTED mg/L
Potassium	Sewage, industrial or commercial liquid waste	4.08 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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

The source of the dry weather flow is natural or irrigation water, no evidence of illicit discharge detected.

Describe the investigation, including the methods that were/will be used to identify the suspected 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 were tested on 8/15/2024, potassium was tested on 8/30.2024, ammonia was tested on 8/28/2024, and fluoride were tested 8/25/2024. None of these parameters were indicative of illicit discharge sources and the temperature of the water is within a reasonable range for the time of year that sampling was conducted.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024

Outfall ID: PS044 (6/10/2024)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: PS044 (previously C0406) Outfall Location Description: 1766 Yardville Hamilton Square Road

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Pond Run

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

36" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ■ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

N/A

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ■ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 10 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable:

6/10/2024: dry weather flow observed, added to list for further sampling.
8/6/2015

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ☒ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 0.5 GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: ND-NOT DETECTED mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: 68.6 °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.): _____

Outfall

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	ND-NOT DETECTED mg/L
Potassium	Sewage, industrial or commercial liquid waste	4.18 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	0.17 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 of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

The source of the dry weather flow is natural or irrigation water, no evidence of illicit discharge detected.

Describe the investigation, including the methods that were/will be used to identify the suspected 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 were tested on 8/15/2024, potassium was tested on 8/30.2024, ammonia was tested on 8/28/2024, and fluoride were tested 8/25/2024. None of these parameters were indicative of illicit discharge sources and the temperature of the water is within a reasonable range for the time of year that sampling was conducted.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024

Outfall ID: PS045 (6/10/2024)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: PS045 (previously C0405) Outfall Location Description: 1766 Yardville Hamilton Square Road

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Pond Run

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

36" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☒ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

N/A

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☒ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 10 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable: 6/10/2024: dry weather flow observed, added to list for further sampling.

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ☐ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. NO FLOW _____ GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: _____ mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: N/A °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, No flow upon re-inspection

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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

N/A

Describe the investigation, including the methods that were/will be used to identify the suspected 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.

No flow observed upon re-inspection. None of the observations from the original inspection were determined to be a concern for an illicit connection.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024

Outfall ID: PS055 (6/18/2024)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: PS055 (previously D0410) Outfall Location Description: 97 Versailles Court

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Pond Run

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

28" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☐ NEVER ☐ SOMETIMES* ☒ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

Partially submerged in flowing water

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☒ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 18 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable: 6/18/2024: Suspicious properties identified, added to list for sampling.

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ☒ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 1 GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: ND-NOT DETECTED mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: 70.9 °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.): _____

Outfall

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	ND-NOT DETECTED mg/L
Potassium	Sewage, industrial or commercial liquid waste	6.26 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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

The source of the dry weather flow is natural or irrigation water, no evidence of illicit discharge detected.

Describe the investigation, including the methods that were/will be used to identify the suspected 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 were tested on 8/15/2024, potassium was tested on 8/30.2024, ammonia was tested on 8/28/2024, and fluoride were tested 8/25/2024. None of these parameters were indicative of illicit discharge sources and the temperature of the water is within a reasonable range for the time of year that sampling was conducted.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024

Outfall ID: PS063 (6/18/2024)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: PS063 Outfall Location Description: 1812 Kuser Road

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Pond Run

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

20" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☐ NEVER ☒ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

Partially submerged in moving water

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☒ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 18 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable: 6/18/2024: Suspicious properties identified, added to list for sampling.

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ▣ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. N/A, partially submerged so cannot measure GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: ND-NOT DETECTED mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: 74.2 °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.): _____

Outfall

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	1.62 mg/L
Potassium	Sewage, industrial or commercial liquid waste	5.44 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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

The source of the dry weather flow is natural or irrigation water, no evidence of illicit discharge detected.

Describe the investigation, including the methods that were/will be used to identify the suspected 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 were tested on 8/15/2024, potassium was tested on 8/30.2024, ammonia was tested on 8/28/2024, and fluoride were tested 8/25/2024. None of these parameters were indicative of illicit discharge sources and the temperature of the water is within a reasonable range for the time of year that sampling was conducted.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source been eliminated? ☐ YES ☐ NO

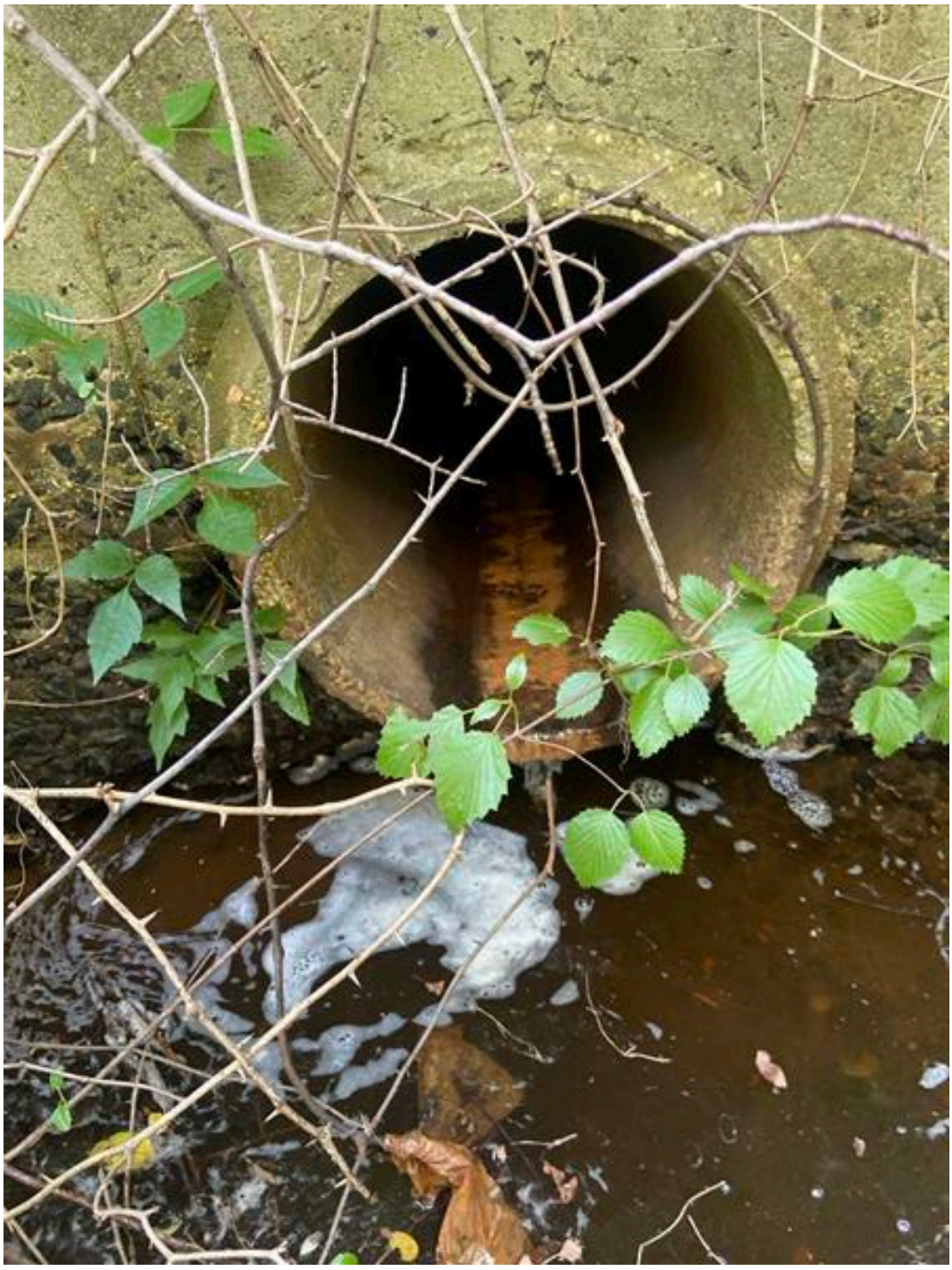
Describe the plan of action that was/will be followed to eliminate the illicit connection. This plan should detail who is/was responsible for the discharge, what methods were/will be used to fix it, how long it took/will take, and how removal was/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024



Outfall ID: PS064 (6/18/2024)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: PS064 Outfall Location Description: 1812 Kuser Road

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Pond Run

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

20" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☒ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

N/A

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☒ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 18 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable: 6/18/2024: Suspicious properties identified, added to list for sampling.

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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: Orange
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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ▣ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 1.25 GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: ND-NOT DETECTED mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: 71.3 °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.): _____

Outfall

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	0.880 mg/L
Potassium	Sewage, industrial or commercial liquid waste	7.83 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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

The source of the dry weather flow is natural or irrigation water, no evidence of illicit discharge detected.

Describe the investigation, including the methods that were/will be used to identify the suspected 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 were tested on 8/15/2024, potassium was tested on 8/30.2024, ammonia was tested on 8/28/2024, and fluoride were tested 8/25/2024. None of these parameters were indicative of illicit discharge sources and the temperature of the water is within a reasonable range for the time of year that sampling was conducted.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024

Outfall ID: PS072 (6/18/2024)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: PS072 Outfall Location Description: 409 Cypress Lane

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Pond Run

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

36" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☒ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

N/A

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☒ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 18 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable: 6/18/2024: Suspicious properties identified, added to list for sampling.

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ☐ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. NO FLOW _____ GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: _____ mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: N/A °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, No flow upon re-inspection

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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

N/A

Describe the investigation, including the methods that were/will be used to identify the suspected 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.

No flow observed upon re-inspection. None of the observations from the original inspection were determined to be a concern for an illicit connection.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024

Outfall ID: SB006 (6/14/2024)

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: SB006 Outfall Location Description: 2 Bradford Avenue

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Shady Brook

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

18" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☒ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

N/A

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☒ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 14 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable: 6/14/2024: dry weather flow observed, added to list for further sampling.

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ☒ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 0.75 GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: ND-NOT DETECTED mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: 76.7 °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.): _____

Outfall

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	ND-NOT DETECTED mg/L
Potassium	Sewage, industrial or commercial liquid waste	ND-NOT DETECTED 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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

The source of the dry weather flow is natural or irrigation water, no evidence of illicit discharge detected.

Describe the investigation, including the methods that were/will be used to identify the suspected 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 were tested on 8/15/2024, potassium was tested on 8/30.2024, ammonia was tested on 8/28/2024, and fluoride were tested 8/26/2024. None of these parameters were indicative of illicit discharge sources and the temperature of the water is within a reasonable range for the time of year that sampling was conducted.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024

Outfall ID: SB007 (6/14/2024)

The bottom image shows a pipe adjacent to outfall SB007 (top image) continuously discharging water into the stream

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the Tier A Guidance Document.

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 INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: SB007 (previously F0408) Outfall Location Description: 2 Bradford Avenue

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Shady Brook

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.):

26" diameter concrete pipe

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☒ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

N/A

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): N/A

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☒ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

N/A

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: 08 / 14 / 2024

Latest precipitation/snowmelt event: 08 / 09 / 2024 Amount of Precipitation (in.): 0.19

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 06 / 14 / 24

List the date(s) of previous inspection(s) and describe the actions taken, if applicable:

6/14/2024: Suspicious properties identified, added to list for sampling.
8/20/2015

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: *Manhole ID:* N/A *Approximate distance upstream from outfall (ft.):* N/A

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications 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 Stains within outfall	*Coatings, residues or fragments of material may be indicators of a potential intermittent 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* ☒ 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.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 4.5 GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: ND-NOT DETECTED mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: 66 °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.): _____

Outfall

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, washwater	ND-NOT DETECTED mg/L
Potassium	Sewage, industrial or commercial liquid waste	ND-NOT DETECTED 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.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

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 of the dry weather flow or illicit connection?

The source of the dry weather flow is natural or irrigation water, no evidence of illicit discharge detected.

Describe the investigation, including the methods that were/will be used to identify the suspected 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 were tested on 8/15/2024, potassium was tested on 8/30.2024, ammonia was tested on 8/28/2024, and fluoride were tested 8/26/2024. None of these parameters were indicative of illicit discharge sources and the temperature of the water is within a reasonable range for the time of year that sampling was conducted.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source 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/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: PAYAL KHATRI

Title: PROGRAM ASSOCIATE Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Payal Khatri Date: 9/18/2024