

# RUTGERS

New Jersey Agricultural  
Experiment Station



## **Hamilton Township (Mercer County) ILLICIT DISCHARGE INVESTIGATION 2022**

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

February 9, 2023

## Acknowledgements

The Hamilton Township (Mercer County) Illicit Discharge Investigation – Summer 2022 has been produced by the **Rutgers Cooperative Extension (RCE) Water Resources Program**.

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

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## **Introduction**

The Rutgers Cooperative Extension (RCE) Water Resources Program collected samples from eight outfall sites in Hamilton Township, Mercer County, New Jersey during the summer of 2022 that exhibited dry weather flow. These eight outfall sites were part of a larger group of twelve outfalls that were identified as being potential illicit discharges based on visual inspections conducted during the regular outfall inspections of Region 1 (Assunpink Creek and Miry Run) during the summer of 2022 (Figure 1). These twelve outfalls all had dry weather flow or other potential signs of illicit discharges. Data from this initial inspection can be found in Attachment 1.

## **Sampling**

The twelve outfalls were all revisited and reinspected for evidence of illicit discharge on August 18, 2022. Eight of the outfalls were observed to be flowing, and the remaining four were no longer flowing. These four outfalls showed no other evidence of illicit discharge and were reinspected following a longer period of dry weather than with the initial inspection of Region 1. Standard forms required by the New Jersey Department of Environmental Protection (NJDEP) were completed for all twelve outfalls at the time of reinspection and can be found in (Attachment 2).

Water Resources Program staff collected samples from the eight outfalls found to be flowing on August 18, 2022. Samples were analyzed for surfactants, ammonia as N, potassium, and fluoride to determine if the discharge was characteristic of an illicit discharge. In-situ temperature measurements of the discharges were also taken. The results of these analyses as well as the calculated ammonia to potassium ratio can be found in Table 1. Referenced methodologies include: MBAS/surfactants (SM 5540 C-11), ammonia as N (EPA 350.1), potassium (EPA 300.0 Rev. 2.1), and fluoride (EPA 200.7 Rev 4.4).

During the initial outfall inspections, a new outfall was identified and labeled as NO1 for sampling. All outfalls are undergoing a renumbering process as the database is audited during the new round of inspections. The "sample ID" is the old "outfall ID;" the new IDs are included in the tables to identify them moving forward.

# Hamilton Outfall Region 1: Potential Illicit Discharges

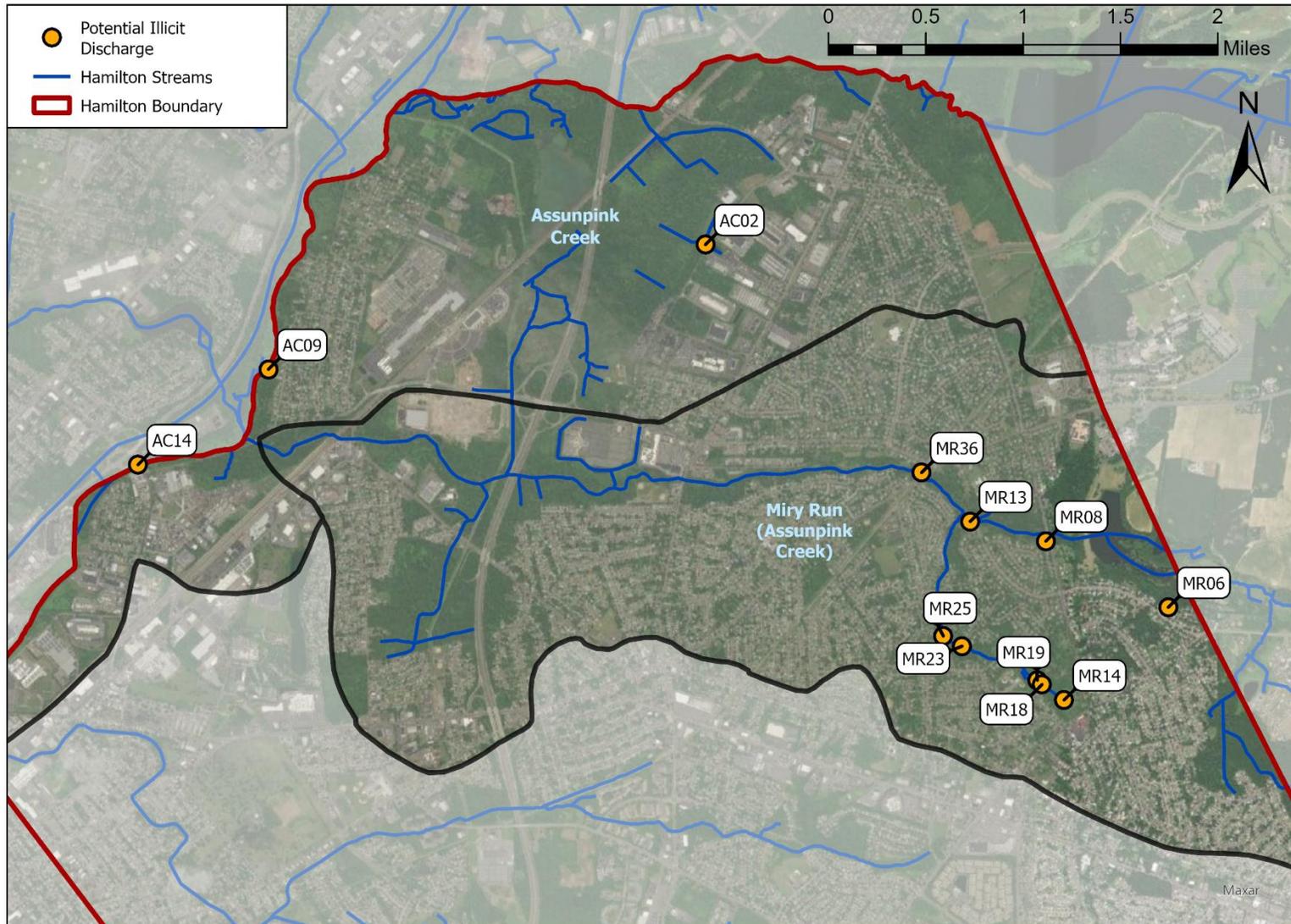


Figure 1: Hamilton Township outfall sampling sites, 2022

**Table 1: Results from outfall sampling**

New Outfall ID	Sample ID (Old ID)	Sample Date	Time Sampled	Temperature (°F)	Surfactants (MBAS) (mg/L)	Ammonia as N (mg/L)	Potassium (mg/L)	Ratio NH3:K	Fluoride (mg/L)	Estimated Flow Rate (gpm)
AC02	NO1	8/18/2022	9:50 AM	70.8	ND	ND	ND	0.00	ND	0.50
AC09	E0101	8/18/2022	2:10 PM	73.4	ND	8.18	ND	3.27	ND	0.43
AC14	E0218	8/18/2022	2:42 PM	74.3	ND	1.53	7.5	0.20	ND	0.30
MR08	B0309	8/18/2022	10:22 AM	70.1	ND	ND	ND	0.00	ND	0.33
MR13	B0304	8/18/2022	12:04 PM	71.9	ND	ND	ND	0.00	ND	0.038
MR14	B0310	8/18/2022	11:01 AM	66.5	ND	ND	5.8	0.00	ND	0.33
MR19	B0311	8/18/2022	11:19 AM	69.7	ND	ND	ND	0.00	ND	1.00
MR25	B0323	8/18/2022	12:27 PM	70.0	ND	1.70	ND	0.68	ND	3.30
MR06	A0303	Not Sampled								No flow
MR18	B0312	Not Sampled								No flow
MR23	B0326	Not Sampled								No flow
MR36	B0329	Not Sampled								No flow

ND = not detected

MBAS = methylene blue active substances

## Results

The Illicit Discharge Identification Flow Chart provided by the New Jersey Department of Environmental Protection (NJDEP) in chapter 3.6 of the Municipal Separate Storm Sewer System Tier A Guidance Document (Figure 2) was used to determine the presence of an illicit discharge.

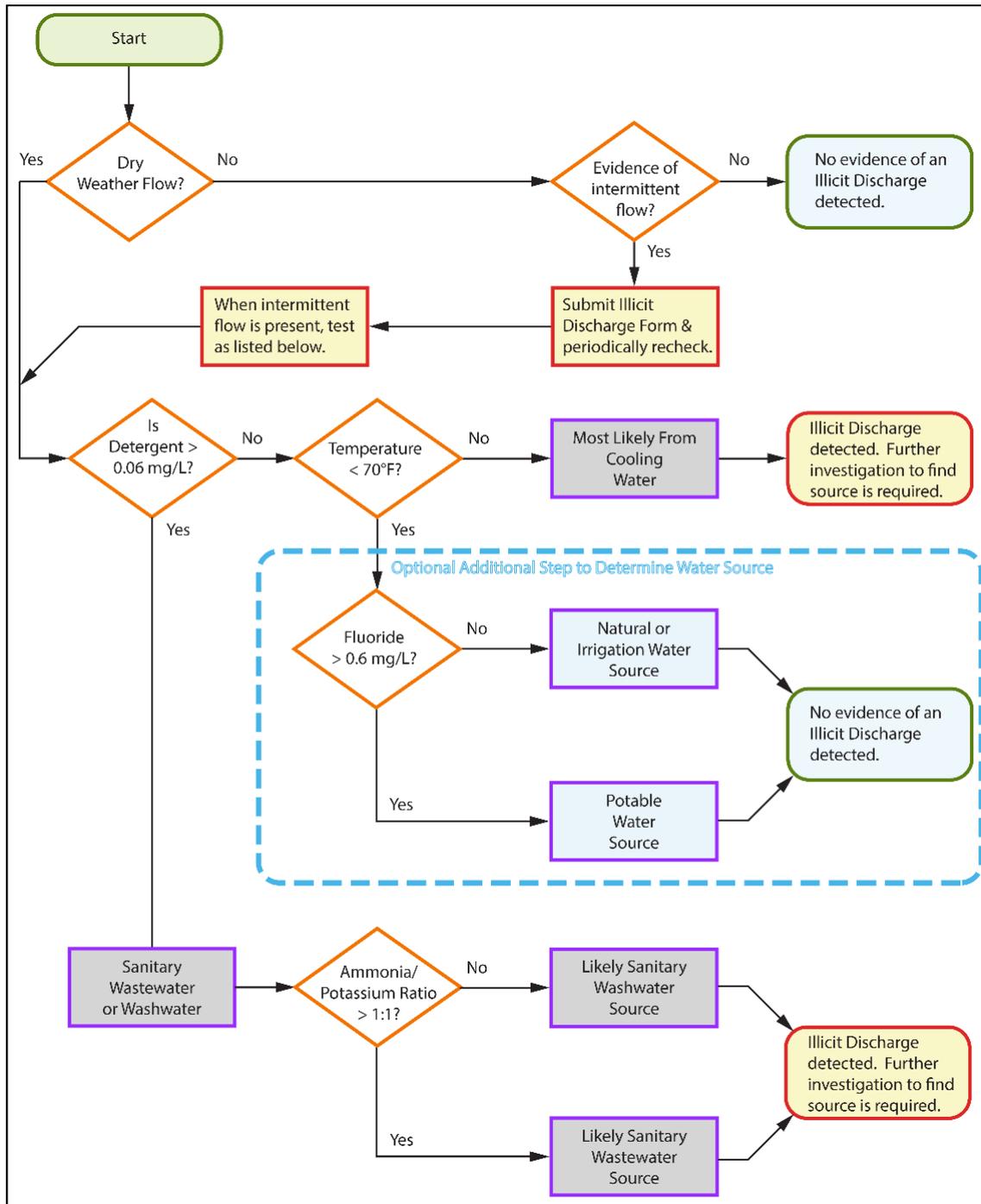
Surfactants & Ammonia/Potassium Ratio: As seen from the results in Table 1, all samples were reported as not detected (ND) for surfactants. The ratio of ammonia to potassium can be used to distinguish a sanitary wastewater source from a washwater source in the presence of surfactants. The ammonia to potassium ratio of sanitary sewage is characteristically greater than 1.0. Dry weather flows with an ammonia to potassium ratio less than 1.0 are likely to be from a washwater source (NJDEP, 2018). Since no surfactants were observed, this ratio is reported only for future reference purposes.

Temperature: In-situ temperature measurements were difficult to collect due to the extremely low volume and shallow nature of the water being discharged from the outfalls. The temperature of the discharge was likely more influenced by rising ambient air temperatures than by suspected cooling water sources. It is important to note that facilities requiring cooling water were not observed in the vicinity of these outfalls.

Ammonia & Potassium: 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  $\geq 20$  mg/L, and the benchmark concentration for ammonia as N to identify industrial discharges is  $\geq 50$  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.

Fluoride: All samples were reported as non-detect for fluoride, indicating that the dry weather flows observed are more than likely from a natural or irrigation water source.

The measured data indicate that there is no evidence that any of the sampled dry weather flows are illicit discharges, so no further investigation is required.



**Figure 2: 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.

**Attachment 1: Initial Inspection Table**

## Suspected Illicit Discharge

Outfall_ID	OLD_ID	Subwatershed	Date of Inspection	Date of Last Rain	Last Rain Amount [in]	Is the pipe fully or partially submerged?	Are there known non-stormwater discharges?	Rainfall Last 72hrs?	Dry Weather Flow?	Illicit Discharge Suspected?	Odor
AC02		Assunpink Creek	8/4/2022	8/1/2022	0.51	Y (Partially Submerged)	N	N	Y	Y	None
AC09	E0101	Assunpink Creek	7/22/2022	7/17/2022	0.38	N	N	N	Y	Y	None
AC14	E0218	Assunpink Creek	7/22/2022	7/17/2022	0.38	N	N	N	Y	Y	None
MR06	A0303	Miry Run	7/22/2022	7/17/2022	0.38	N	N	N	Y	Y	None
MR08	B0309	Miry Run	7/21/2022	7/17/2022	0.38	N	N	N	Y	Y	None
MR13	B0304	Miry Run	7/21/2022	7/17/2022	0.38	N	N	N	Y	Y	None
MR14	B0310	Miry Run	7/21/2022	7/17/2022	0.38	Y (Partially Submerged)	N	N	Y	Y	None
MR18	B0312	Miry Run	7/21/2022	7/17/2022	0.38	N	N	N	Y	Y	None
MR19	B0311	Miry Run	7/21/2022	7/17/2022	0.38	N	N	N	Y	Y	None
MR23	B0326	Miry Run	7/21/2022	7/17/2022	0.38	Y (Partially Submerged)	N	N	N	Y	None
MR25	B0323	Miry Run	7/21/2022	7/17/2022	0.38	N	N	N	Y	Y	None
MR36	B0329	Miry Run	7/21/2022	7/17/2022	0.38	N	N	N	Y	Y	None

## Suspected Illicit Discharge

Outfall_ID	Color	Turbidity	Floatables	Deposits or Stains	Adjacent Vegetation (compared to other areas)	Notes	Overall Priority
AC02	Clear	Clear	None	None	normal	(Sampled)	2 - Low
AC09	Clear	Clear	None	None	normal	(Sampled) Extreme undermining	5 - Highest
AC14	Brown	Cloudy	Other	Excessive sediments	normal	(Sampled) sediment and garbage inside	2 - Low
MR06	Gray	Cloudy	None	None	normal	(Reinspected, no flow) Sediment buildup, 2 downspouts nearby	4 - High
MR08	Clear	Clear	None	Grayish-Black	normal	(Sampled) Bamboo growth around outfall	4 - High
MR13	Clear	Clear	None	None	normal	(Sampled) Connects from outfall behind [formerly B0304]	2 - Low
MR14	Clear	Clear	None	None	normal	(Sampled) Some sediment buildup in pipe, significant erosion upstream of outfall from culvert	2 - Low
MR18	Clear	Clear	None	None	normal	(Reinspected, no flow) Starting to undermine a little	2 - Low
MR19	Clear	Clear	None	None	normal	(Sampled)	2 - Low
MR23	Clear	Clear	None	None	normal	(Reinspected, no flow) Stream has signs of increased erosion	3 - Medium
MR25	Clear	Clear	None	Grayish-Black	normal	(Sampled)	2 - Low
MR36	Clear	Clear	None	None	normal	(no flow) 60" x39" pipe	3 - Medium

**Attachment 2: 2022 Illicit Connection Visual Inspection Reports**

# 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: AC02 (formerly NO1) Outfall Location Description: 26-28 Thomas J Rhodes Industrial Dr, Hamilton New Jersey, 08619

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Assunpink Creek

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 but consistent flow.

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.): \_\_\_\_\_

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:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

**SECTION 3: OUTFALL INSPECTION**

Date of current inspection: 8 / 18 / 2022

Latest precipitation/snowmelt event: 8 / 11 / 2022 Amount of Precipitation (in.): 0.43

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 8/4 / / 22

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

8/4/22 : Outfall identified as potential illicit discharge and added to list to be sampled \_\_\_\_\_

**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: NONE AVAILABLE Approximate distance upstream from outfall (ft.): \_\_\_\_\_

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.)*

<b>Odor</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (stale/septic sanitary wastewater) <input type="checkbox"/> Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) <input type="checkbox"/> Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) <input type="checkbox"/> Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) <input type="checkbox"/> Other: _____
<b>Color</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) <input type="checkbox"/> Gray (dairies, sewage) <input type="checkbox"/> Yellow (chemical plants, textile and tanning plants) <input type="checkbox"/> Red (meat packers) <input type="checkbox"/> Other: _____
<b>Turbidity</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) <input type="checkbox"/> Opaque (food processors, lumber mills, metal works, pigment plants)
<b>Floatable Matter (Does not include litter)</b>	<i>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.</i> <input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (toilet paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other: _____

<b>Deposits and Stains within outfall</b>	<i>Coatings, residues or fragments of material may be indicators of a potential intermittent non-stormwater discharge</i> <input checked="" type="checkbox"/> None <input type="checkbox"/> Grayish-Black (leather tanneries) <input type="checkbox"/> White crystalline powder (Nitrogenous fertilizers) <input type="checkbox"/> Excessive sediments (construction sites) <input type="checkbox"/> Oily residues (petroleum refineries, storage facilities, vehicle service areas) <input type="checkbox"/> Other: _____
<b>Vegetation</b>	<i>As compared to surrounding Riparian bank and/or stream vegetation</i> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Excessive growth and/or algal presence (Food processing plants) <input type="checkbox"/> 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.\**

<b>Estimated Dry Weather Flow Rate</b>	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. ~0.5 _____ GPM
<b>Detergents</b> Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste  Measurement: <u>ND-NOT DETECTED</u> mg/L
<b>Temperature of dry weather discharge</b>	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: <u>70.8</u> °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](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	ND-NOT DETECTED 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?

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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, potassium, ammonia, and fluoride were all tested on 8/18/22. None of the tested parameters are indicative of an illicit discharge. Temperature was within a reasonable for time of year, and none of the observations from the original inspection made any strong 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: MATTHEW LECONY

Title: SR. PROG. COORD. SPVR.

Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Matthew Leconey

Digitally signed by Matthew Leconey  
Date: 2023.02.08 16:40:53 -05'00'

Date: 2/8/2022



**Outfall ID: AC02 (8/4/2022)**

# 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: AC09 (formerly E0101) Outfall Location Description: Carlisle Ave, Hamilton, New Jersey, 08619

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Assunpink Creek

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:

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.): \_\_\_\_\_

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:

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

**SECTION 3: OUTFALL INSPECTION**

Date of current inspection: 8 / 18 / 2022

Latest precipitation/snowmelt event: 8 / 11 / 22 Amount of Precipitation (in.): 0.43

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 7/22 / / 22

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

7/22/22 : Outfall identified as potential illicit discharge and added to list to be sampled \_\_\_\_\_

**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: \_\_\_\_\_ Approximate distance upstream from outfall (ft.): \_\_\_\_\_

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.)*

<b>Odor</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (stale/septic sanitary wastewater) <input type="checkbox"/> Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) <input type="checkbox"/> Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) <input type="checkbox"/> Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) <input type="checkbox"/> Other: _____
<b>Color</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) <input type="checkbox"/> Gray (dairies, sewage) <input type="checkbox"/> Yellow (chemical plants, textile and tanning plants) <input type="checkbox"/> Red (meat packers) <input type="checkbox"/> Other: _____
<b>Turbidity</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) <input type="checkbox"/> Opaque (food processors, lumber mills, metal works, pigment plants)
<b>Floatable Matter (Does not include litter)</b>	<i>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.</i> <input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (toilet paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other: _____

<b>Deposits and Stains within outfall</b>	<i>Coatings, residues or fragments of material may be indicators of a potential intermittent non-stormwater discharge</i> <input checked="" type="checkbox"/> None <input type="checkbox"/> Grayish-Black (leather tanneries) <input type="checkbox"/> White crystalline powder (Nitrogenous fertilizers) <input type="checkbox"/> Excessive sediments (construction sites) <input type="checkbox"/> Oily residues (petroleum refineries, storage facilities, vehicle service areas) <input type="checkbox"/> Other: _____
<b>Vegetation</b>	<i>As compared to surrounding Riparian bank and/or stream vegetation</i> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Excessive growth and/or algal presence (Food processing plants) <input type="checkbox"/> 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.\**

<b>Estimated Dry Weather Flow Rate</b>	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 0.43 _____ GPM
<b>Detergents</b> Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste  Measurement: <u>ND-NOT DETECTED</u> mg/L
<b>Temperature of dry weather discharge</b>	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: <u>73.4</u> °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](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	8.18 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	ND-NOT-DETECTED 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?

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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, potassium, ammonia, and fluoride were all tested on 8/18/22. None of the tested parameters are indicative of an illicit discharge. Temperature was within a reasonable for time of year, and none of the observations from the original inspection made any strong 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: MATTHEW LECONEY

Title: SR. PROG. COORD. SPVR.

Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Matthew Leconey

Digitally signed by Matthew Leconey  
Date: 2023.02.08 17:02:20 -05'00'

Date: 2/8/23



**Outfall ID: AC09 (7/22/2022)**

# 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: AC14 (formerly E0218) Outfall Location Description: 533 Whitehead Rd, Hamilton New Jersey, 08619

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Assunpink Creek

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:

Not submerged

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.): \_\_\_\_\_

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:

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

**SECTION 3: OUTFALL INSPECTION**

Date of current inspection: 8 / 18 / 2022

Latest precipitation/snowmelt event: 8 / 11 / 22 Amount of Precipitation (in.): 0.43

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 7/22 / / 22

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

7/22/22 : Outfall identified as potential illicit discharge and added to list to be sampled

**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: \_\_\_\_\_ Approximate distance upstream from outfall (ft.): \_\_\_\_\_

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.)*

<b>Odor</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (stale/septic sanitary wastewater) <input type="checkbox"/> Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) <input type="checkbox"/> Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) <input type="checkbox"/> Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) <input type="checkbox"/> Other: _____
<b>Color</b>	<input type="checkbox"/> Clear <input type="checkbox"/> Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) <input type="checkbox"/> Gray (dairies, sewage) <input type="checkbox"/> Yellow (chemical plants, textile and tanning plants) <input type="checkbox"/> Red (meat packers) <input checked="" type="checkbox"/> Other: ORANGE
<b>Turbidity</b>	<input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) <input type="checkbox"/> Opaque (food processors, lumber mills, metal works, pigment plants)
<b>Floatable Matter (Does not include litter)</b>	<i>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.</i> <input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (toilet paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other: _____

<b>Deposits and Stains within outfall</b>	<i>Coatings, residues or fragments of material may be indicators of a potential intermittent non-stormwater discharge</i> <input type="checkbox"/> None <input type="checkbox"/> Grayish-Black (leather tanneries) <input type="checkbox"/> White crystalline powder (Nitrogenous fertilizers) <input checked="" type="checkbox"/> Excessive sediments (construction sites) <input type="checkbox"/> Oily residues (petroleum refineries, storage facilities, vehicle service areas) <input type="checkbox"/> Other: _____
<b>Vegetation</b>	<i>As compared to surrounding Riparian bank and/or stream vegetation</i> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Excessive growth and/or algal presence (Food processing plants) <input type="checkbox"/> 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.\**

<b>Estimated Dry Weather Flow Rate</b>	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 0.30 _____ GPM
<b>Detergents</b> Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste  Measurement: <u>ND-NOT DETECTED</u> mg/L
<b>Temperature of dry weather discharge</b>	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: <u>74.3</u> °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](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	1.53 mg/L
Potassium	Sewage, industrial or commercial liquid waste	7.50 mg/L
Boron	>0.35 mg/L likely indicates sewage or washwater	mg/L
Chlorine	Industrial or commercial liquid waste	mg/L
Conductivity	Sewage, washwater, and industrial or commercial liquid waste	S/m
E. coli (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	ND-NOT DETECTED 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=02251e521d97454aabafd8cf168e44d>) 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?

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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, potassium, ammonia, and fluoride were all tested on 8/18/22. None of the tested parameters are indicative of an illicit discharge. Temperature was within a reasonable for time of year. The outfall shows signs of orange color, so there may be erosion from the source of the pipe. Aside from the color, none of the observations from the original inspection made any strong concern for an illicit connection, and the color is likely from a natural source.

### 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: MATTHEW LECONY

Title: SR. PROG. COORD. SPVR.

Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Matthew Leconey

Digitally signed by Matthew Leconey  
Date: 2023.02.08 17:10:13 -05'00'

Date: 2/8/2023



**Outfall ID: AC14 (7/22/2022)**

# 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: MR06 (formerly A0303) Outfall Location Description: 620 Flock Rd, Hamilton New Jersey, 08690

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Miry 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:

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.): \_\_\_\_\_

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:

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

**SECTION 3: OUTFALL INSPECTION**

Date of current inspection: 8 / 18 / 2022

Latest precipitation/snowmelt event: 8 / 11 / 2022 Amount of Precipitation (in.): 0.43

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 7/22 / 22

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

7/22/22 : Outfall identified as potential illicit discharge and added to list to be sampled

**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: \_\_\_\_\_ Approximate distance upstream from outfall (ft.): \_\_\_\_\_

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.)*

<b>Odor</b>	<input type="checkbox"/> None <input type="checkbox"/> Sewage (stale/septic sanitary wastewater) <input type="checkbox"/> Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) <input type="checkbox"/> Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) <input type="checkbox"/> Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) <input type="checkbox"/> Other: _____
<b>Color</b>	<input type="checkbox"/> Clear <input type="checkbox"/> Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) <input type="checkbox"/> Gray (dairies, sewage) <input type="checkbox"/> Yellow (chemical plants, textile and tanning plants) <input type="checkbox"/> Red (meat packers) <input type="checkbox"/> Other: _____
<b>Turbidity</b>	<input type="checkbox"/> Clear <input type="checkbox"/> Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) <input type="checkbox"/> Opaque (food processors, lumber mills, metal works, pigment plants)
<b>Floatable Matter (Does not include litter)</b>	<i>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.</i> <input type="checkbox"/> None <input type="checkbox"/> Sewage (toilet paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other: _____

<b>Deposits and Stains within outfall</b>	<i>Coatings, residues or fragments of material may be indicators of a potential intermittent non-stormwater discharge</i> <input type="checkbox"/> None <input type="checkbox"/> Grayish-Black (leather tanneries) <input type="checkbox"/> White crystalline powder (Nitrogenous fertilizers) <input type="checkbox"/> Excessive sediments (construction sites) <input type="checkbox"/> Oily residues (petroleum refineries, storage facilities, vehicle service areas) <input type="checkbox"/> Other: _____
<b>Vegetation</b>	<i>As compared to surrounding Riparian bank and/or stream vegetation</i> <input type="checkbox"/> Normal <input type="checkbox"/> Excessive growth and/or algal presence (Food processing plants) <input type="checkbox"/> 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.\**

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

*\*Proceed to Section 6 in accordance with the Guidance Document recommendations.\**

**SECTION 6: DRY WEATHER FLOW ANALYSIS - WATER QUALITY**

*\* Based on the potential discharge types determined in the 'Physical Observation' and 'Field Monitoring' sections, further testing must be conducted using the appropriate subset of parameters below. The following parameters are recommended by the EPA for specific types of discharges as noted in the table below. For more information, refer to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance document ([https://www3.epa.gov/npdes/pubs/idde\\_manualwithappendices.pdf](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 reinspection \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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?

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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 reinspection. None of the observations from the original inspection were determined to be concern for an illicit connection. The outfall was reinspected during a drier period when no flow was observed, so it is assumed to be from a groundwater source.

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**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: \_\_\_\_\_

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**SECTION 9: INSPECTOR INFORMATION**

Inspector's Name: MATTHEW LECONY

Title: SR. PROG. COORD. SPVR. Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Matthew Leconey  Digitally signed by Matthew Leconey  
Date: 2023.02.07 19:03:06 -05'00' Date: 2/8/2023



**Outfall ID: MR06 (7/22/2022)**

# 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: MR08(B0309) Outfall Location Description: 335 Hughes Dr, Hamilton New Jersey, 08690

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Miry 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:

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.): \_\_\_\_\_

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:

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

**SECTION 3: OUTFALL INSPECTION**

Date of current inspection: 8 / 18 / 2022

Latest precipitation/snowmelt event: 8 / 11 / 22 Amount of Precipitation (in.): 0.43

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 7/22 / / 22

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

7/22/22 : Outfall identified as potential illicit discharge and added to list to be sampled \_\_\_\_\_

**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: \_\_\_\_\_ Approximate distance upstream from outfall (ft.): \_\_\_\_\_

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.)*

<b>Odor</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (stale/septic sanitary wastewater) <input type="checkbox"/> Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) <input type="checkbox"/> Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) <input type="checkbox"/> Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) <input type="checkbox"/> Other: _____
<b>Color</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) <input type="checkbox"/> Gray (dairies, sewage) <input type="checkbox"/> Yellow (chemical plants, textile and tanning plants) <input type="checkbox"/> Red (meat packers) <input type="checkbox"/> Other: _____
<b>Turbidity</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) <input type="checkbox"/> Opaque (food processors, lumber mills, metal works, pigment plants)
<b>Floatable Matter (Does not include litter)</b>	<i>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.</i> <input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (toilet paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other: _____

<b>Deposits and Stains within outfall</b>	<i>Coatings, residues or fragments of material may be indicators of a potential intermittent non-stormwater discharge</i> <input checked="" type="checkbox"/> None <input type="checkbox"/> Grayish-Black (leather tanneries) <input type="checkbox"/> White crystalline powder (Nitrogenous fertilizers) <input type="checkbox"/> Excessive sediments (construction sites) <input type="checkbox"/> Oily residues (petroleum refineries, storage facilities, vehicle service areas) <input type="checkbox"/> Other: _____
<b>Vegetation</b>	<i>As compared to surrounding Riparian bank and/or stream vegetation</i> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Excessive growth and/or algal presence (Food processing plants) <input type="checkbox"/> 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.\**

<b>Estimated Dry Weather Flow Rate</b>	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. ~0.33 _____ GPM
<b>Detergents</b> Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste  Measurement: <u>ND-NOT DETECTED</u> mg/L
<b>Temperature of dry weather discharge</b>	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: <u>70.1</u> °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](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 DTECTED 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	ND-NOT DETECTED 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?

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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, potassium, ammonia, and fluoride were all tested on 8/18/22. None of the tested parameters are indicative of an illicit discharge. Temperature was within a reasonable for time of year, and none of the observations from the original inspection made any strong 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: MATTHEW LECONY

Title: SR. PROG. COORD. SPVR.

Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Matthew Leconey

Digitally signed by Matthew Leconey  
Date: 2023.02.08 17:15:55 -05'00'

Date: 2/8/2023



**Outfall ID: MR08 (7/21/2022)**

# 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: MR13 (formerly B0304) Outfall Location Description: 501-533 Flock Rd, Hamilton New Jersey, 08690

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Miry 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:

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.): \_\_\_\_\_

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:

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

**SECTION 3: OUTFALL INSPECTION**

Date of current inspection: 8 / 18 / 2022

Latest precipitation/snowmelt event: 8 / 11 / 22 Amount of Precipitation (in.): 0.43

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 7/21 / / 22

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

7/21/22 : Outfall identified as potential illicit discharge and added to list to be sampled \_\_\_\_\_

**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: \_\_\_\_\_ Approximate distance upstream from outfall (ft.): \_\_\_\_\_

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.)*

<b>Odor</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (stale/septic sanitary wastewater) <input type="checkbox"/> Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) <input type="checkbox"/> Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) <input type="checkbox"/> Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) <input type="checkbox"/> Other: _____
<b>Color</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) <input type="checkbox"/> Gray (dairies, sewage) <input type="checkbox"/> Yellow (chemical plants, textile and tanning plants) <input type="checkbox"/> Red (meat packers) <input type="checkbox"/> Other: _____
<b>Turbidity</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) <input type="checkbox"/> Opaque (food processors, lumber mills, metal works, pigment plants)
<b>Floatable Matter (Does not include litter)</b>	<i>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.</i> <input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (toilet paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other: _____

<b>Deposits and Stains within outfall</b>	<i>Coatings, residues or fragments of material may be indicators of a potential intermittent non-stormwater discharge</i> <input checked="" type="checkbox"/> None <input type="checkbox"/> Grayish-Black (leather tanneries) <input type="checkbox"/> White crystalline powder (Nitrogenous fertilizers) <input type="checkbox"/> Excessive sediments (construction sites) <input type="checkbox"/> Oily residues (petroleum refineries, storage facilities, vehicle service areas) <input type="checkbox"/> Other: _____
<b>Vegetation</b>	<i>As compared to surrounding Riparian bank and/or stream vegetation</i> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Excessive growth and/or algal presence (Food processing plants) <input type="checkbox"/> 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.\**

<b>Estimated Dry Weather Flow Rate</b>	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 0.038 _____ GPM
<b>Detergents</b> Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste  Measurement: <u>ND-NOT DETECTED</u> mg/L
<b>Temperature of dry weather discharge</b>	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: <u>71.9</u> °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](https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf)).*

Indicate the location of your measurements (e.g. outfall, manhole number, etc.): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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

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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, potassium, ammonia, and fluoride were all tested on 8/18/22. None of the tested parameters are indicative of an illicit discharge. Temperature was within a reasonable for time of year, and none of the observations from the original inspection made any strong 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: MATTHEW LECONEY

Title: SR. PROG. COORD. SPVR.

Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Matthew Leconey

Digitally signed by Matthew Leconey  
Date: 2023.02.08 17:22:10 -05'00'

Date: 2/8/2023



**Outfall ID: MR13 (7/21/2022)**

# 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: MR14 (formerly B0310) Outfall Location Description: Park Ave, Hamilton, New Jersey 08690

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Miry Run

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

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:

Submerged, but clear flow coming from pipe

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.): \_\_\_\_\_

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:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

**SECTION 3: OUTFALL INSPECTION**

Date of current inspection: 8 / 18 / 2022

Latest precipitation/snowmelt event: 8 / 11 / 22 Amount of Precipitation (in.): 0.43

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 7/21 / / 22

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

7/21/22 : Outfall identified as potential illicit discharge and added to list to be sampled

**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: NONE AVAILABLE Approximate distance upstream from outfall (ft.): \_\_\_\_\_

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.)*

<b>Odor</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (stale/septic sanitary wastewater) <input type="checkbox"/> Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) <input type="checkbox"/> Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) <input type="checkbox"/> Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) <input type="checkbox"/> Other: _____
<b>Color</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) <input type="checkbox"/> Gray (dairies, sewage) <input type="checkbox"/> Yellow (chemical plants, textile and tanning plants) <input type="checkbox"/> Red (meat packers) <input type="checkbox"/> Other: _____
<b>Turbidity</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) <input type="checkbox"/> Opaque (food processors, lumber mills, metal works, pigment plants)
<b>Floatable Matter (Does not include litter)</b>	<i>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.</i> <input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (toilet paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other: _____

<b>Deposits and Stains within outfall</b>	<i>Coatings, residues or fragments of material may be indicators of a potential intermittent non-stormwater discharge</i> <input type="checkbox"/> None <input type="checkbox"/> Grayish-Black (leather tanneries) <input type="checkbox"/> White crystalline powder (Nitrogenous fertilizers) <input type="checkbox"/> Excessive sediments (construction sites) <input checked="" type="checkbox"/> Oily residues (petroleum refineries, storage facilities, vehicle service areas) <input type="checkbox"/> Other: _____
<b>Vegetation</b>	<i>As compared to surrounding Riparian bank and/or stream vegetation</i> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Excessive growth and/or algal presence (Food processing plants) <input type="checkbox"/> 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.\**

<b>Estimated Dry Weather Flow Rate</b>	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. ~0.33 _____ GPM
<b>Detergents</b> Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste  Measurement: <u>ND-NOT DETECTED</u> mg/L
<b>Temperature of dry weather discharge</b>	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: <u>66.5</u> °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](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	5.80 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	ND-NOT DETECTED 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?

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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, potassium, ammonia, and fluoride were all tested on 8/18/22. None of the tested parameters are indicative of an illicit discharge. Temperature was within a reasonable for time of year, and none of the observations from the original inspection made any strong 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: MATTHEW LECONEY

Title: SR. PROG. COORD. SPVR. Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Matthew Leconey  Digitally signed by Matthew Leconey  
Date: 2023.02.08 17:39:15 -05'00' Date: 2/8/2023



**Outfall ID: MR14 (7/21/2022)**

# 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: MR18 (formerly B0312) Outfall Location Description: 243 Park Ave, Hamilton New Jersey, 08690

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Miry 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:

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.): \_\_\_\_\_

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:

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

**SECTION 3: OUTFALL INSPECTION**

Date of current inspection: 8 / 18 / 2022

Latest precipitation/snowmelt event: 8 / 11 / 2022 Amount of Precipitation (in.): 0.43

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 7/21 / / 22

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

7/21/22 : Outfall identified as potential illicit discharge and added to list to be sampled \_\_\_\_\_

**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: \_\_\_\_\_ Approximate distance upstream from outfall (ft.): \_\_\_\_\_

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.)*

<b>Odor</b>	<input type="checkbox"/> None <input type="checkbox"/> Sewage (stale/septic sanitary wastewater) <input type="checkbox"/> Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) <input type="checkbox"/> Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) <input type="checkbox"/> Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) <input type="checkbox"/> Other: _____
<b>Color</b>	<input type="checkbox"/> Clear <input type="checkbox"/> Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) <input type="checkbox"/> Gray (dairies, sewage) <input type="checkbox"/> Yellow (chemical plants, textile and tanning plants) <input type="checkbox"/> Red (meat packers) <input type="checkbox"/> Other: _____
<b>Turbidity</b>	<input type="checkbox"/> Clear <input type="checkbox"/> Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) <input type="checkbox"/> Opaque (food processors, lumber mills, metal works, pigment plants)
<b>Floatable Matter (Does not include litter)</b>	<i>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.</i> <input type="checkbox"/> None <input type="checkbox"/> Sewage (toilet paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other: _____

<b>Deposits and Stains within outfall</b>	<i>Coatings, residues or fragments of material may be indicators of a potential intermittent non-stormwater discharge</i> <input type="checkbox"/> None <input type="checkbox"/> Grayish-Black (leather tanneries) <input type="checkbox"/> White crystalline powder (Nitrogenous fertilizers) <input type="checkbox"/> Excessive sediments (construction sites) <input type="checkbox"/> Oily residues (petroleum refineries, storage facilities, vehicle service areas) <input type="checkbox"/> Other: _____
<b>Vegetation</b>	<i>As compared to surrounding Riparian bank and/or stream vegetation</i> <input type="checkbox"/> Normal <input type="checkbox"/> Excessive growth and/or algal presence (Food processing plants) <input type="checkbox"/> 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.\**

<b>Estimated Dry Weather Flow Rate</b>	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 0 - NO FLOW _____ GPM
<b>Detergents</b> Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste  Measurement: _____ mg/L
<b>Temperature of dry weather discharge</b>	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: _____ °F

*\*Proceed to Section 6 in accordance with the Guidance Document recommendations.\**

**SECTION 6: DRY WEATHER FLOW ANALYSIS - WATER QUALITY**

*\* Based on the potential discharge types determined in the 'Physical Observation' and 'Field Monitoring' sections, further testing must be conducted using the appropriate subset of parameters below. The following parameters are recommended by the EPA for specific types of discharges as noted in the table below. For more information, refer to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance document ([https://www3.epa.gov/npdes/pubs/idde\\_manualwithappendices.pdf](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 reinspection \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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?

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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 reinspection. None of the observations from the original inspection were determined to be concern for an illicit connection. The outfall was reinspected during a drier period when no flow was observed, so it is assumed to be from a groundwater source.

**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: MATTHEW LECONY

Title: SR. PROG. COORD. SPVR. Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Matthew Leconey  Digitally signed by Matthew Leconey  
Date: 2023.02.07 19:14:53 -05'00' Date: 2/8/2023



**Outfall ID: MR18 (7/21/2022)**

# 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: MR19 (formerly B0311) Outfall Location Description: Park Ave, Hamilton, New Jersey 08690

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Miry Run

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

HDPE corrugated 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:

Not submerged

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.): \_\_\_\_\_

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:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

**SECTION 3: OUTFALL INSPECTION**

Date of current inspection: 8 / 18 / 2022

Latest precipitation/snowmelt event: 8 / 11 / 22 Amount of Precipitation (in.): 0.43

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 7/21 / / 22

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

7/21/22 : Outfall identified as potential illicit discharge and added to list to be sampled \_\_\_\_\_

**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: \_\_\_\_\_ Approximate distance upstream from outfall (ft.): \_\_\_\_\_

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.)*

<b>Odor</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (stale/septic sanitary wastewater) <input type="checkbox"/> Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) <input type="checkbox"/> Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) <input type="checkbox"/> Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) <input type="checkbox"/> Other: _____
<b>Color</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) <input type="checkbox"/> Gray (dairies, sewage) <input type="checkbox"/> Yellow (chemical plants, textile and tanning plants) <input type="checkbox"/> Red (meat packers) <input type="checkbox"/> Other: _____
<b>Turbidity</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) <input type="checkbox"/> Opaque (food processors, lumber mills, metal works, pigment plants)
<b>Floatable Matter (Does not include litter)</b>	<i>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.</i> <input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (toilet paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other: _____

<b>Deposits and Stains within outfall</b>	<i>Coatings, residues or fragments of material may be indicators of a potential intermittent non-stormwater discharge</i> <input checked="" type="checkbox"/> None <input type="checkbox"/> Grayish-Black (leather tanneries) <input type="checkbox"/> White crystalline powder (Nitrogenous fertilizers) <input type="checkbox"/> Excessive sediments (construction sites) <input type="checkbox"/> Oily residues (petroleum refineries, storage facilities, vehicle service areas) <input type="checkbox"/> Other: _____
<b>Vegetation</b>	<i>As compared to surrounding Riparian bank and/or stream vegetation</i> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Excessive growth and/or algal presence (Food processing plants) <input type="checkbox"/> 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.\**

<b>Estimated Dry Weather Flow Rate</b>	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 1 _____ GPM
<b>Detergents</b> Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste  Measurement: <u>ND-NOT DETECTED</u> mg/L
<b>Temperature of dry weather discharge</b>	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: <u>69.7</u> °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](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	ND-NOT DETECTED 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?

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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, potassium, ammonia, and fluoride were all tested on 8/18/22. None of the tested parameters are indicative of an illicit discharge. Temperature was within a reasonable for time of year, and none of the observations from the original inspection made any strong 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: MATTHEW LECONY

Title: SR. PROG. COORD. SPVR. Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Matthew Leconey  Digitally signed by Matthew Leconey  
Date: 2023.02.08 17:39:59 -05'00' Date: 2/8/2023



**Outfall ID: MR19 (7/21/2022)**

# 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: MR23 (formerly B0326) Outfall Location Description: 54 Crestwood Dr, Hamilton, New Jersey, 08690

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Miry 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:

No flow observed, just submerged

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.): \_\_\_\_\_

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:

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

**SECTION 3: OUTFALL INSPECTION**

Date of current inspection: 8 / 18 / 2022

Latest precipitation/snowmelt event: 8 / 11 / 2022 Amount of Precipitation (in.): 0.43

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 7/21 / /

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

7/21/22 : Outfall identified as potential illicit discharge and added to list to be sampled

**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: NONE AVAILABLE Approximate distance upstream from outfall (ft.): \_\_\_\_\_

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.)*

<b>Odor</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (stale/septic sanitary wastewater) <input type="checkbox"/> Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) <input type="checkbox"/> Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) <input type="checkbox"/> Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) <input type="checkbox"/> Other: _____
<b>Color</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) <input type="checkbox"/> Gray (dairies, sewage) <input type="checkbox"/> Yellow (chemical plants, textile and tanning plants) <input type="checkbox"/> Red (meat packers) <input type="checkbox"/> Other: _____
<b>Turbidity</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) <input type="checkbox"/> Opaque (food processors, lumber mills, metal works, pigment plants)
<b>Floatable Matter (Does not include litter)</b>	<i>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.</i> <input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (toilet paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other: _____

<b>Deposits and Stains within outfall</b>	<i>Coatings, residues or fragments of material may be indicators of a potential intermittent non-stormwater discharge</i> <input checked="" type="checkbox"/> None <input type="checkbox"/> Grayish-Black (leather tanneries) <input type="checkbox"/> White crystalline powder (Nitrogenous fertilizers) <input type="checkbox"/> Excessive sediments (construction sites) <input type="checkbox"/> Oily residues (petroleum refineries, storage facilities, vehicle service areas) <input type="checkbox"/> Other: _____
<b>Vegetation</b>	<i>As compared to surrounding Riparian bank and/or stream vegetation</i> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Excessive growth and/or algal presence (Food processing plants) <input type="checkbox"/> 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.\**

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

*\*Proceed to Section 6 in accordance with the Guidance Document recommendations.\**

**SECTION 6: DRY WEATHER FLOW ANALYSIS - WATER QUALITY**

*\* Based on the potential discharge types determined in the 'Physical Observation' and 'Field Monitoring' sections, further testing must be conducted using the appropriate subset of parameters below. The following parameters are recommended by the EPA for specific types of discharges as noted in the table below. For more information, refer to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance document ([https://www3.epa.gov/npdes/pubs/idde\\_manualwithappendices.pdf](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 reinspection \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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?

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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 reinspection. None of the observations from the original inspection were determined to be concern for an illicit connection. The outfall was reinspected during a drier period when no flow was observed, so it is assumed to be from a groundwater source.

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**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: \_\_\_\_\_

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**SECTION 9: INSPECTOR INFORMATION**

Inspector's Name: MATTHEW LECONY

Title: SR. PROG. COORD. SPVR. Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Matthew Leconey  Digitally signed by Matthew Leconey  
Date: 2023.02.07 19:20:55 -05'00' Date: 2/8/2023



**Outfall ID: MR23 (7/21/2022)**

# 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: MR25 (formerly B0323) Outfall Location Description: 6 Arrowwood Dr, Trenton, New Jersey, 08690

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Miry 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:

Submerged, but clear flow coming from pipe

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.): \_\_\_\_\_

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:

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

**SECTION 3: OUTFALL INSPECTION**

Date of current inspection: 8 / 18 / 2022

Latest precipitation/snowmelt event: 8 / 11 / 22 Amount of Precipitation (in.): 0.43

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 7/21 / / 22

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

7/21/22 : Outfall identified as potential illicit discharge and added to list to be sampled

**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: \_\_\_\_\_ Approximate distance upstream from outfall (ft.): \_\_\_\_\_

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.)*

<b>Odor</b>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (stale/septic sanitary wastewater) <input type="checkbox"/> Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) <input type="checkbox"/> Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) <input type="checkbox"/> Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) <input type="checkbox"/> Other: _____
<b>Color</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) <input type="checkbox"/> Gray (dairies, sewage) <input type="checkbox"/> Yellow (chemical plants, textile and tanning plants) <input type="checkbox"/> Red (meat packers) <input type="checkbox"/> Other: _____
<b>Turbidity</b>	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) <input type="checkbox"/> Opaque (food processors, lumber mills, metal works, pigment plants)
<b>Floatable Matter (Does not include litter)</b>	<i>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.</i> <input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage (toilet paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other: _____

<b>Deposits and Stains within outfall</b>	<i>Coatings, residues or fragments of material may be indicators of a potential intermittent non-stormwater discharge</i> <input type="checkbox"/> None <input checked="" type="checkbox"/> Grayish-Black (leather tanneries) <input type="checkbox"/> White crystalline powder (Nitrogenous fertilizers) <input type="checkbox"/> Excessive sediments (construction sites) <input type="checkbox"/> Oily residues (petroleum refineries, storage facilities, vehicle service areas) <input type="checkbox"/> Other: _____
<b>Vegetation</b>	<i>As compared to surrounding Riparian bank and/or stream vegetation</i> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Excessive growth and/or algal presence (Food processing plants) <input type="checkbox"/> 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.\**

<b>Estimated Dry Weather Flow Rate</b>	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. 3.3 _____ GPM
<b>Detergents</b> Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste  Measurement: <u>ND-NOT DETECTED</u> mg/L
<b>Temperature of dry weather discharge</b>	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: <u>70.0</u> °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](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	1.70 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	ND-NOT DETECTED 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?

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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, potassium, ammonia, and fluoride were all tested on 8/18/22. None of the tested parameters are indicative of an illicit discharge. Temperature was within a reasonable for time of year, and none of the observations from the original inspection made any strong 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: MATTHEW LECONY

Title: SR. PROG. COORD. SPVR. Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Matthew Leconey  Digitally signed by Matthew Leconey  
Date: 2023.02.08 17:41:53 -05'00' Date: 2/8/2023



**Outfall ID: MR25 (7/21/2022)**

# 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: MR36 (formerly B0329) Outfall Location Description: 489 Flock Rd, Hamilton, New Jersey, 08619

Municipality: Hamilton Township County: Mercer

Receiving Waterbody: Miry 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:

Not submerged

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.): \_\_\_\_\_

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:

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

**SECTION 3: OUTFALL INSPECTION**

Date of current inspection: 8 / 18 / 2022

Latest precipitation/snowmelt event: 9 / 11 / 2022 Amount of Precipitation (in.): 0.43

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: 7 / / 22

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

7/22/22 : Outfall identified as potential illicit discharge and added to list to be sampled

**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: \_\_\_\_\_ Approximate distance upstream from outfall (ft.): \_\_\_\_\_

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.)*

<b>Odor</b>	<input type="checkbox"/> None <input type="checkbox"/> Sewage (stale/septic sanitary wastewater) <input type="checkbox"/> Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) <input type="checkbox"/> Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) <input type="checkbox"/> Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) <input type="checkbox"/> Other: _____
<b>Color</b>	<input type="checkbox"/> Clear <input type="checkbox"/> Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) <input type="checkbox"/> Gray (dairies, sewage) <input type="checkbox"/> Yellow (chemical plants, textile and tanning plants) <input type="checkbox"/> Red (meat packers) <input type="checkbox"/> Other: _____
<b>Turbidity</b>	<input type="checkbox"/> Clear <input type="checkbox"/> Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) <input type="checkbox"/> Opaque (food processors, lumber mills, metal works, pigment plants)
<b>Floatable Matter (Does not include litter)</b>	<i>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.</i> <input type="checkbox"/> None <input type="checkbox"/> Sewage (toilet paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other: _____

<b>Deposits and Stains within outfall</b>	<i>Coatings, residues or fragments of material may be indicators of a potential intermittent non-stormwater discharge</i> <input type="checkbox"/> None <input type="checkbox"/> Grayish-Black (leather tanneries) <input type="checkbox"/> White crystalline powder (Nitrogenous fertilizers) <input type="checkbox"/> Excessive sediments (construction sites) <input type="checkbox"/> Oily residues (petroleum refineries, storage facilities, vehicle service areas) <input type="checkbox"/> Other: _____
<b>Vegetation</b>	<i>As compared to surrounding Riparian bank and/or stream vegetation</i> <input type="checkbox"/> Normal <input type="checkbox"/> Excessive growth and/or algal presence (Food processing plants) <input type="checkbox"/> 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.\**

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

*\*Proceed to Section 6 in accordance with the Guidance Document recommendations.\**

**SECTION 6: DRY WEATHER FLOW ANALYSIS - WATER QUALITY**

*\* Based on the potential discharge types determined in the 'Physical Observation' and 'Field Monitoring' sections, further testing must be conducted using the appropriate subset of parameters below. The following parameters are recommended by the EPA for specific types of discharges as noted in the table below. For more information, refer to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance document ([https://www3.epa.gov/npdes/pubs/idde\\_manualwithappendices.pdf](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 reinspection \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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?

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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 reinspection. None of the observations from the original inspection were determined to be concern for an illicit connection. The outfall was reinspected during a drier period when no flow was observed, so it is assumed to be from a groundwater source.

**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: MATTHEW LECONEY

Title: SR. PROG. COORD. SPVR. Affiliation: RCE WATER RESOURCES PROGRAM

Signature: Matthew Leconey  Digitally signed by Matthew Leconey  
Date: 2023.02.07 19:36:58 -05'00' Date: 2/7/2023



**Outfall ID: MR36 (7/21/2022)**