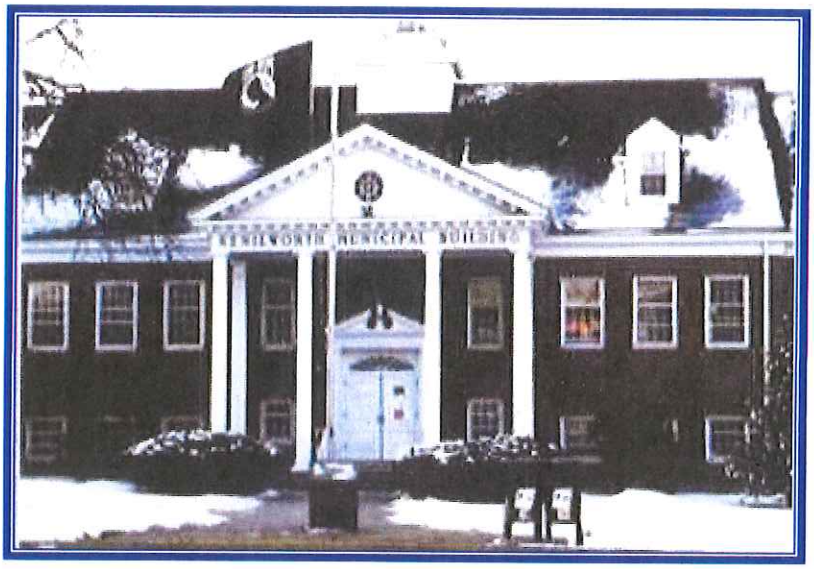
THE BOROUGH OF KENILWORTH

UNION COUNTY
NEW JERSEY



NJDPES MUNICIPAL STORMWATER REGULATION PROGRAM

MS4 OUTFALL PIPE MAPPING
ILLICIT CONNECTION ELIMINATION PROGRAM
OUTFALL PIPE STREAM SCOURING REMEDIATION

N.J.A.C. 7:14A-1-16; N.J.A.C. 7:14A-24; N.J.A.C. 7:14A-25

NJPDES GENERAL PERMIT # **NJ0152099**

PROGRAM INTEREST ID # **263021**

Effective Date of Permit Authorization: April 1, 2004

PREPARED FOR:

THE BOROUGH OF KENILWORTH

May 23, 2007

Prepared by:

PMK Group

CONSULTING & ENVIRONMENTAL ENGINEERS

\\Cranford\Vol1\Client\Clients G-M\Kenilworth Borough\Project Data\070247 - Municipal Stormwater Services\070247-09\Kenilworth SPPP\Outfall Mapping\070247-L-042507 - Outfall Mapping Report Cover, TOC, SPPP.Doc

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INTRODUCTION

The Tier A Stormwater General Permit issued to the Borough requires the addressing of stormwater quality issues by implementing specific permit requirements known as Statewide Basic Requirements (SBRs). SBRs contain minimum standards, measurable goals and implementation schedules. Improper disposal of wastes and the control of solids and floatables are SBRs contained in the Borough's Stormwater Permit. These SBRs require outfall pipe mapping, illicit connection elimination and outfall pipe stream scouring remediation.

PMK Group (PMK) has conducted Kenilworth's Municipal Separate Storm Sewer System (MS4) outfall mapping, which includes mapping of the MS4 outfalls through utilization of a Global Positioning System (GPS), and identification of surface water bodies that receive discharges from these outfalls. PMK has compiled this information in the tables below and on tax maps which accompany this report.

SCOPE

On March 26 and April 24, 2007, PMK representatives canvassed the Borough of Kenilworth to identify all municipally owned MS4 outfalls and the surface water bodies to which they discharge. In addition, digital photographs were taken of all accessible outfalls. Outfall locations were mapped using GPS.

The initial physical inspection of the identified outfalls included the observation of the physical condition of the outfall (i.e. stream bank scouring and damage to outfall structure), as well as an inspection for possible illicit connections (i.e.; dry-weather flow or indications of intermittent flow).

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ILLICIT CONNECTION INSPECTIONS

Tier A municipalities are required to develop and maintain an ongoing program to detect and eliminate illicit connections. The New Jersey Department of Environmental Protection (NJDEP or Department) defines an illicit connection as "any physical or non-physical connection that discharges domestic sewage, non-contact cooling water, process wastewater, or other industrial waste (other than stormwater) to the Tier A Municipality's small MS4, unless that discharge is authorized under a separate NJPDES permit." The Borough's Tier A Stormwater Permit also identifies allowable discharges to the MS4.

The first step in implementing an illicit connection elimination program is to locate and map the stormwater outfall pipes, and to identify each with a unique alpha-numeric identifier. During outfall pipe mapping, an initial inspection for dry-weather flow (flow being discharged seventy-two (72) hours after a rain event) should be conducted. Outfall pipes found to have dry-weather flow or indications of intermittent non-stormwater flow must be investigated in accordance with the Borough's Tier A Municipal Stormwater Permit to identify and locate the specific source. If dry-weather flow is discovered, a description of the flow, including color, odor, and turbidity should be noted. If a non-stormwater discharge is found, but no source is located within six (6) months of beginning the investigation, then the Borough should submit a Closeout Investigation Form to NJDEP. If intermittent flow is identified, the Borough must make a minimum of three (3) attempts to investigate the discharge. If these attempts are unsuccessful, a Closeout Form documenting these attempts should be submitted with the NJDEP Annual Report and Certification.

If an illicit connection emanates from the Borough's property, it must be eliminated within six (6) months of the discovery. If an illicit connection cannot be located or is found to emanate from another entity, then the Borough must submit a written explanation detailing the results of the investigation to the Department.

OUTFALL PIPE INVESTIGATIONS

The following table summarizes the outfall pipes identified, the receiving water body, and visual identification of the presence of dry-weather flow and scouring in the immediate vicinity of the outfall structure. A detailed description of each outfall follows.

Table 1: Kenilworth MS4 Outfall Pipe Investigation Summary

OUTFALL ID	LOCATION	DISCHARGES TO:	DRY-WEATHER FLOW	SCOURING
KB-01	Michigan Avenue (near water tower)	Unnamed Ditch to West Branch, Elizabeth River	NO	YES[1]
KB-04	Lafayette Place	Old Channel	YES[2]	NO
KB-05	14th Street & Sheridan Ave.	Old Channel	Unknown[3]	Unknown[3]
KB-06	Wilshire Drive	Unnamed Tributary to Rahway River	Unknown[2]	NO
KB-07*	Pembrook Drive	Unnamed Tributary to Rahway River	NO	NO
KB-08*	Pembrook Drive	Unnamed Tributary to Rahway River	NO	NO
KB-09*	Pembrook Drive	Unnamed Tributary to Rahway River	NO	NO
KB-10*	Pembrook Drive	Unnamed Tributary to Rahway River	NO	NO
KB-11	Between Epping Drive & Pembrook Drive	Unnamed Tributary to Rahway River	YES	YES[1]
KB-12*	Epping Drive	Unnamed Tributary to Rahway River	NO	NO
KB-13*	Epping Drive	Unnamed Tributary to Rahway River	NO	NO
KB-14	Epping Drive	Unnamed Tributary to Rahway River	YES	NO
KB-15*	Dorset Drive	Unnamed Tributary to Rahway River	NO	NO
KB-16*	Dorset Drive	Unnamed Tributary to Rahway River	NO	NO
KB-22a	Faitoute Avenue Bridge @ Cranford Ave	Unnamed Tributary to Rahway River	NO[4]	NO
KB-22b*	Faitoute Avenue Bridge @ Cranford Ave	Unnamed Tributary to Rahway River	NO[4]	NO
KB-22c*	Faitoute Avenue Bridge @ Cranford Ave	Unnamed Tributary to Rahway River	NO[4]	NO
KB-22d*	Faitoute Avenue Bridge @ Cranford Ave	Unnamed Tributary to Rahway River	NO[4]	NO
KB-23	Bloomingdale Ave. & Trenton Ave.	Unnamed Tributary to Rahway River	NO[4]	NO[1]
KB-24	Bloomingdale Ave. & Trenton Ave.	Unnamed Tributary to Rahway River	NO	NO[1]
KB-25	Michigan Ave. & Trenton Ave.	Unnamed Tributary to Rahway River	NO[4]	NO[1]

OUTFALL ID	LOCATION	DISCHARGES TO:	DRY-WEATHER FLOW	SCOURING
KB-26	Michigan Ave. & Trenton Ave. (north)	Unnamed Tributary to Rahway River	NO[4]	NO
KB-27	Michigan Ave. & Trenton Ave.	Unnamed Tributary to Rahway River	NO[4]	NO
KB-28	Under Parkway @ Trenton Avenue	Unnamed Tribuary To Rahway River	Unknown[3]	Unknown[3]
KB-29	South 31st Street	Unnamed Tribuary To Rahway River	Unknown[4]	NO
KB-30	Hoiles Drive	Morses Creek	INTERMITTENT	YES[1]
KB-31	Hoiles Drive	Morses Creek	Unknown[2]	NO
KB-32	Market Street Bridge	Morses Creek	NO[4]	NO
KB-33	Market Street Bridge	Morses Creek	NO[4]	NO
KB-34	Carnegie Avenue Bridge	Morses Creek	Unknown[4]	NO
KB-35	Carnegie Avenue Bridge	Morses Creek	NO[4]	NO
KB-36	Lexington Avenue	Morses Creek	Unknown[2]	YES
KB-37	Carnegie Avenue & Lexington Ave (set back)	Morses Creek	INTERMITTENT	NO[1]
KB-38	Michigan Ave Bridge @ Lexington Ave	Morses Creek	NO[4]	NO
KB-39	Michigan Ave Bridge @ Lexington Ave	Morses Creek	NO[4]	NO
KB-40	Michigan Ave Bridge @ Lexington Ave	Morses Creek	NO	NO
KB-41	Michigan Ave Bridge @ Lexington Ave	Morses Creek	NO	NO
KB-42	Faitoute Avenue Bridge	Morses Creek	NO	NO
KB-43	Faitoute Avenue Bridge	Morses Creek	NO	NO
KB-44	Maplewood Avenue	Morses Creek	INTERMITTENT	NO
KB-45	Oakwood Avenue	Morses Creek	NO	NO
KB-46	Beechwood Avenue	Morses Creek	INTERMITTENT	NO

[1] Damage to outfall structure or flow restriction present.
[2] Outfall was partially or completely submerged. Up-gradient inlet could not be located for inspection.
[3] Outfall was not accessible. Inspections for flow, scouring or damage could not be conducted.
[4] Outfall was partially or completely submerged. Flow Inspection conducted at up-gradient inlet.
* This structure does not appear to meet the NJDEP definition of an outfall; however the Borough should confirm that there are no other pipes connected to/discharging into this system.

Table 2: Kenilworth MS4 Outfall Pipe Descriptions and Photographs

Outfall KB-01 Outfall KB-01, located on Michigan Avenue, near the water tower, discharges into an unnamed ditch that flows into the West Branch, Elizabeth River. No dry-weather flow was observed during the inspection. The outfall structure has been compromised due to scouring and erosion present at the discharge point. Kenilworth should stabilize this area using methods found in the Standards for Soil Erosion and Sediment Control in New Jersey (N.J.A.C. 2:90-1). Prior to performing any repairs, the Borough should determine if any State, Federal or Local permits are required. The initial inspection of this outfall was conducted on March 26, 2007.	**Figure 1** 
Outfall KB-04 Outfall KB-04, located near the Kenilworth PBA on Lafayette Place, discharges into the Old Channel. There was dry-weather flow observed discharging from the outfall at a rate of approximately ten (10) gallons per minute. Although this discharge appeared to be due to a piped stream, it appeared orange in color, which could be a sign of an illicit connection. At the time of the audit, a drilling operation was underway, upgradient, on the corner of Lafayette Place and Lafayette Ave which could have attributed to the orange color of the water. **As required by NJDEP, the Borough must investigate the source of this discharge and submit the Illicit Connection Inspection Report Form for this outfall with the Annual Report and Certification.** Scouring did not appear in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on March 26, 2007.	**Figure 2** 

Outfall KB-05 Outfall KB-05, which discharges into Old Channel, is located on the private property of the Brent Company at 14th St. and Sheridan Ave If the outfall in this location is municipally owned or maintained, the Borough must conduct an initial investigation for dry-weather flow and scouring. In accordance with the Borough's Stormwater Permit, all municipally owned outfalls need to be investigated by April 1, 2009.	*No Figure.*
Outfall KB-06 Outfall KB-06, located on Wilshire Drive, discharges into an unnamed tributary to the Rahway River. There was standing water present at the outfall location at the time of our audit. An up-gradient catch basin could not be located for inspection; however it appears that standing water is consistently present in this system due to backflow from the tributary. Water observed in this area was free of odor, color, and turbidity. Further investigation of this outfall is required to confirm the absence of an illicit connection. Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on March 26, 2007.	**Figure 3** 

KB-07, KB-08, KB-09, KB-10

These structures, located under the Pembrook Drive bridge, discharge to an unnamed tributary to the Rahway River. Four storm drain inlets on Pembrook Drive each appear to drain directly to an outlet under the culvert. The Borough should confirm that these structures do not meet the NJDEP's definition of an outfall. If it is determined that these structures do not meet the definition of an outfall, no further investigations for illicit connections would be required. At the time of the audit, there was no dry-weather flow entering the inlets**. Scouring was not present in the vicinity of the outfalls and the outfall structures did not appear to be damaged at the time of our audit. The initial inspection of these structures was conducted on March 26, 2007.

** The water-stained concrete is suspected to be due to precipitation more than 72 hours prior to the inspection.

Figure 4

Outfall KB-11

Outfall KB-11, located in a drainage easement between Epping Drive and Pembrook Drive, discharges into an unnamed tributary to the Rahway River. Dry-weather flow was observed during the inspection at a rate of approximately five (five) gallons per minute (gpm). Water observed discharging from the outfall was free of odor, color, and turbidity. **As required by NJDEP, the Borough must investigate the source of this discharge and submit the Illicit Connection Inspection Report Form for this outfall with the Annual Report and Certification.** Scouring was present in the vicinity of the outfall at the time of the inspection and was affecting the stability of the outfall structure. Kenilworth should stabilize this area using methods found in the Standards for Soil Erosion and Sediment Control in New Jersey (N.J.A.C. 2:90-1). Damage to the headwall was also apparent. Prior to performing any repairs, the Borough should determine if any State, Federal or Local permits are required. The initial inspection of this outfall was conducted on March 26, 2007.

Figure 5

Table 2: Kenilworth MS4 Outfall Pipe Descriptions and Photographs

Outfall KB-01 Outfall KB-01, located on Michigan Avenue, near the water tower, discharges into an unnamed ditch that flows into the West Branch, Elizabeth River. No dry-weather flow was observed during the inspection. The outfall structure has been compromised due to scouring and erosion present at the discharge point. Kenilworth should stabilize this area using methods found in the Standards for Soil Erosion and Sediment Control in New Jersey (N.J.A.C. 2:90-1). Prior to performing any repairs, the Borough should determine if any State, Federal or Local permits are required. The initial inspection of this outfall was conducted on March 26, 2007.	**Figure 1** 
Outfall KB-04 Outfall KB-04, located near the Kenilworth PBA on Lafayette Place, discharges into the Old Channel. There was dry-weather flow observed discharging from the outfall at a rate of approximately ten (10) gallons per minute. Although this discharge appeared to be due to a piped stream, it appeared orange in color, which could be a sign of an illicit connection. At the time of the audit, a drilling operation was underway, upgradient, on the corner of Lafayette Place and Lafayette Ave which could have attributed to the orange color of the water. **As required by NJDEP, the Borough must investigate the source of this discharge and submit the Illicit Connection Inspection Report Form for this outfall with the Annual Report and Certification.** Scouring did not appear in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on March 26, 2007.	**Figure 2** 

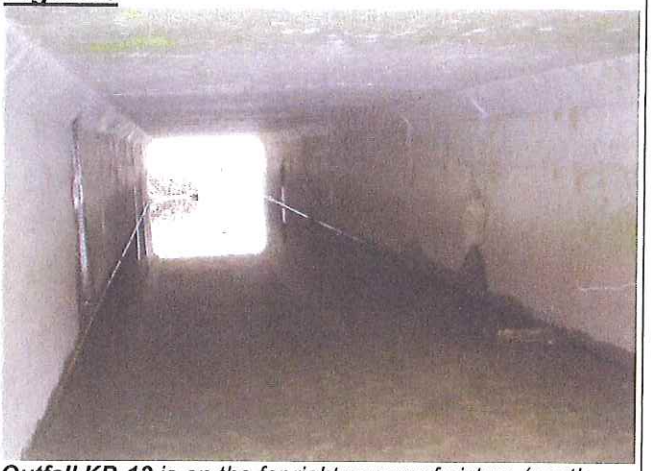
KB-12, KB-13

Outfalls KB-12, KB-13

These structures, located under the Epping Drive bridge, discharge to an unnamed tributary to the Rahway River. Two storm drain inlets located on Epping Drive each appear to drain directly to an outlet under the culvert. The Borough should confirm that these structures do not meet the NJDEP's definition of an outfall. If it is determined that these structures do not meet the definition of an outfall, no further investigations for illicit connections would be required. At the time of the audit, there was no dry-weather flow entering the inlets**. Scouring was not present in the vicinity of the outfalls and the outfall structures did not appear to be damaged at the time of our audit. The initial inspection of these structures was conducted on March 26, 2007.

** The water-stained concrete is suspected to be due to precipitation more than 72 hours prior to the inspection.

Figure 6



Outfall KB-12 *is on the far right corner of picture (south-west corner of bridge).* ***Outfall KB-13*** *is on the near right corner of picture (south-east corner of bridge).* ***Outfall KB-14*** *is on the left side of picture (north-west corner of bridge).*

Outfall KB-14

Outfall KB-14 (left side of Figure 6), located under the Epping Drive bridge, discharges into an unnamed tributary to the Rahway River. There was dry-weather flow discharging from the outfall at a rate of approximately one (1) gpm. An upgradient inlet could not be found; however the upgradient soil was saturated. The cause is unknown. Water observed discharging from the outfall was free of odor, color, and turbidity. **As required by NJDEP, the Borough must investigate the source of this discharge and submit the Illicit Connection Inspection Report Form for this outfall with the Annual Report and Certification.** Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on March 26, 2007.

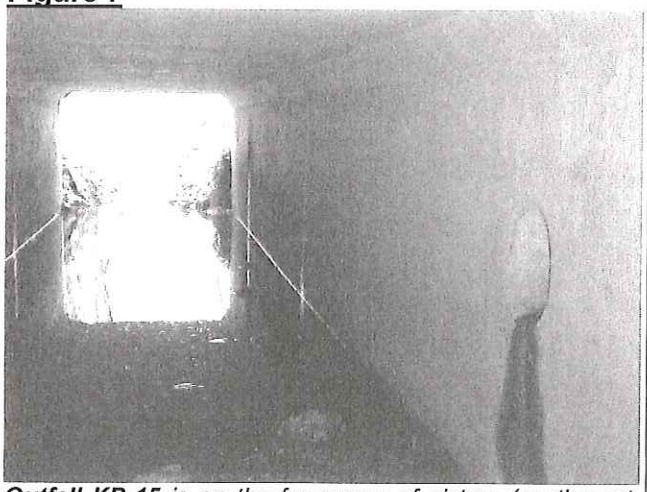
See Figure 6.

KB-15, KB-16

These structures, located under the Dorset Drive bridge, discharge to an unnamed tributary to the Rahway River. The two storm drain inlets located on Epping Drive each appear to drain directly to an outlet under the culvert. The Borough should confirm that these structures do not meet the NJDEP's definition of an outfall. If it is determined that these structures do not meet the definition of an outfall, no further investigations for illicit connections would be required. At the time of the audit, there was no dry-weather flow entering the inlets**. Scouring was not present in the vicinity of the outfalls and the outfall structures did not appear to be damaged at the time of our audit. The initial inspection of these structures was conducted on March 26, 2007.

** The water-stained concrete is suspected to be due to precipitation more than 72 hours prior to the inspection.

Figure 7



Outfall KB-15 *is on the far corner of picture (south-west corner of bridge).* ***Outfall KB-16*** *is on the near corner of picture (south-east corner of bridge).*

Outfall KB-22a

Outfall KB-22a, located under the Faitoute Avenue bridge, near Cranford Avenue, discharges into an unnamed tributary to the Rahway River. There was standing water present at the outfall location at the time of our audit; therefore, the dry-weather flow inspection was conducted at an upgradient inlet. There were no indications of dry-weather flow in the inlet. It appears that standing water is consistently present in the vicinity of the outfall due to backflow from the tributary. Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on March 26, 2007.

Figure 8

Outfall KB-22a *is on the far corner of the left wall (north corner of bridge).* ***Outfall KB-22c*** *is on the near corner of the left wall (west corner of bridge).* ***Outfall KB-22b*** *(opposite 22a) and* ***Outfall KB-22d*** *(opposite 22c) are not visible.*

KB-22b, KB-22c, KB-22d These structures, located in the Faitoute Avenue bridge, near Cranford Avenue, discharge to an unnamed tributary to the Rahway River. Three storm drain inlets located on Faitoute Avenue each appear to drain directly to an outlet under the culvert. There was standing water present at the outfall locations at the time of our audit; therefore, the dry-weather flow inspections were conducted at upgradient inlets. There were no indications of dry-weather flow in the inlets. It appears that standing water is consistently present in the vicinity of the outfalls due to backflow from the tributary. The Borough should confirm that these structures do not meet the NJDEP's definition of an outfall. If it is determined that these structures do not meet the definition of an outfall, no further investigations for illicit connections would be required. At the time of the audit, there was no dry-weather flow entering the inlets. Scouring was not present in the vicinity of the outfalls and the outfall structures did not appear to be damaged at the time of our audit. The initial inspection of these structures was conducted on March 26, 2007.	*See Figure 8.*
Outfall KB-23 Outfall KB-23, located at Bloomingdale Avenue and Trenton Avenue, discharges into the south side of an unnamed tributary to the Rahway River. There was standing water present at the outfall location at the time of our audit; therefore, the dry-weather flow inspection was conducted at an upgradient inlet. There were no indications of dry-weather flow in the inlet. It appears that standing water is consistently present in this outfall due to backflow from the tributary. Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged; however a significant amount of sediment and rocks have accumulated outside the outfall pipe. The Borough should maintain this structure to ensure it is functioning properly. The initial inspection of this outfall was conducted on March 26, 2007.	**Figure 9** 

Outfall KB-24

Outfall KB-24, located at Bloomingdale Avenue and Trenton Avenue, discharges into the north side of an unnamed tributary to the Rahway River. No dry-weather flow was observed during the inspection. Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit; however a significant amount of sediment and rocks have accumulated outside the outfall pipe. The Borough should maintain this structure to ensure it is functioning properly. The initial inspection of this outfall was conducted on March 26, 2007.

Figure 10

Outfall KB-25

Outfall KB-25, located on the west side of Michigan Avenue and Trenton Avenue, discharges into the south side of an unnamed tributary to the Rahway River. There was standing water present at the outfall location at the time of our audit; therefore, the dry-weather flow inspection was conducted at an upgradient inlet. There were no indications of dry-weather flow in the upgradient inlet. It appears that standing water is consistently present in this outfall due to backflow from the tributary. Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged; however a significant amount of sediment and rocks have accumulated outside the outfall pipe. The Borough should maintain this structure to ensure it is functioning properly. The initial inspection of this outfall was conducted on March 26, 2007.

Figure 11

Outfall KB-26

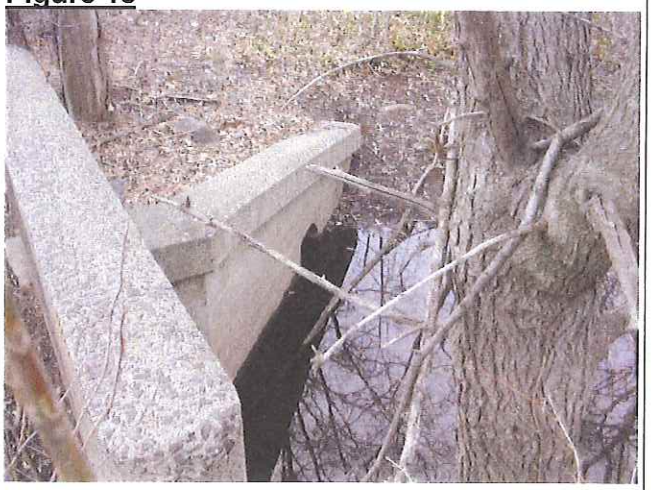
Outfall KB-26, located on the west side of Michigan Avenue and Trenton Avenue, discharges into the north side of an unnamed tributary to the Rahway River. There was standing water present at the outfall location at the time of our audit; therefore, the dry-weather flow inspection was conducted at an upgradient inlet. There were no indications of dry-weather flow in the inlet. It appears that standing water is consistently present in this outfall due to backflow from the tributary. Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on March 26, 2007.

Figure 12

Outfall KB-27

Outfall KB-27, located behind a fence on the east side of Michigan Avenue at Trenton Avenue, discharges into the north side of an unnamed tributary to the Rahway River. There was standing water present at the outfall location at the time of our audit; therefore, the dry-weather flow inspection was conducted at an upgradient inlet. There were no indications of dry-weather flow in the inlet. It appears that standing water is consistently present in this outfall due to backflow from the tributary. Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on March 26, 2007.

Figure 13



Outfall KB-28

Outfall KB-28 is suspected to be located underneath the Garden State Parkway and Trenton Avenue, based on Kenilworth's drainage map. This location was inaccessible at the time of our audit. If the outfall in this location is municipally owned, further investigation of this outfall is required to confirm the absence of an illicit connection. In accordance with the Borough's Stormwater Permit, all municipally owned outfalls need to be investigated by April 1, 2009.

No Figure.

Outfall KB-29

Outfall KB-29, located on South 31st Street (south of the Garden State Parkway), discharges into the south side of an unnamed tributary to the Rahway River. There was standing water present at the outfall location at the time of our audit; therefore, the dry-weather flow inspection was conducted at an upgradient inlet. There was standing water in the upgradient inlet; therefore the inspection could not be completed. Further investigation of this outfall is required to confirm the absence of an illicit connection. Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on April 24, 2007.

Figure 14

Outfall KB-29 *is the smaller of the pipes. The larger pipe is a piped stream from a private retention pond.*

Outfall KB-30

Outfall KB-30, located at the bend in Hoiles Drive, discharges to Morses Creek. No dry-weather flow was observed during the inspection; however, there was evidence of intermittent flow. Although water was not discharging at the time of the audit, the bottom of the pipe has deteriorated which may indicate an illicit connection to the storm sewer system. As required by NJDEP, the Borough must make three (3) additional inspections in an attempt to identify dry-weather flow from this structure. If these attempts are unsuccessful, Kenilworth must submit a Closeout Investigation Form with the Annual Report. Additionally, scouring was present in the vicinity of the outfall at the time of the audit. All repairs should be made using methods found in the Standards for Soil Erosion and Sediment Control in New Jersey (N.J.A.C. 2:90-1). Prior to performing any repairs, the Borough should determine if any State, Federal or Local permits are required. The initial inspection of this outfall was conducted on April 24, 2007.

Figure 15

Outfall KB-31

Outfall KB-31, located on Hoiles Drive, discharges to the west side of Morses Creek. There was standing water present at the outfall location at the time of our audit. An up-gradient catch basin could not be located for inspection; however it appears that standing water is consistently present in this system due to backflow from the creek. Water observed in this area was free of odor, color, and turbidity. Further investigation of this outfall is required to confirm the absence of an illicit connection. Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on April 24, 2007.

Figure 16

Outfall KB-32

Outfall KB-32, located under the southeast corner of the Market Street bridge, discharges to Morses Creek. There was standing water present at the outfall location at the time of our audit; therefore, the dry-weather flow inspection was conducted at an upgradient inlet. There were no indications of dry-weather flow in the inlet. It appears that standing water is consistently present in this outfall due to backflow from the creek. Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on April 24, 2007.

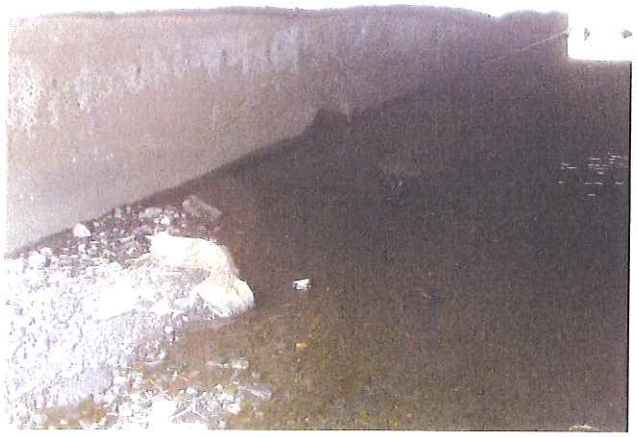
Figure 17

Outfall KB-32 *is at the far (upstream) end of this bridge culvert.*

Outfall KB-33

Outfall KB-33, located under the northwest corner of the Market Street bridge, discharges to Morses Creek. There was standing water present at the outfall location at the time of our audit; therefore, the dry-weather flow inspection was conducted at an upgradient inlet. There were no indications of dry-weather flow in the inlet. It appears that standing water is consistently present in this outfall due to backflow from the creek. Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on April 24, 2007.

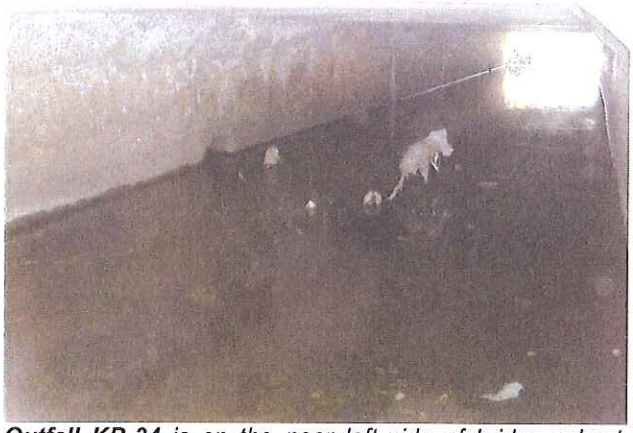
Figure 18



Outfall KB-34

Outfall KB-34, located under the southeast corner of the Carnegie Avenue bridge, discharges to Morses Creek. There was standing water present at the outfall at the time of our audit; therefore, the dry-weather flow inspection was conducted at an upgradient inlet. There was standing water in the upgradient inlet, so the inspection could not be completed. It appears that standing water is consistently present in this outfall due to backflow from the creek; however, further investigation of this outfall is required to confirm the absence of an illicit connection. Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on April 24, 2007.

Figure 19



Outfall KB-34 *is on the near left side of bridge culvert.*
Outfall KB-35 *is on the far left corner of bridge culvert.*

Outfall KB-35 Outfall KB-35 located under the southwest corner of the Carnegie Avenue bridge, discharges to Morses Creek. There was standing water present at the outfall at the time of our audit; therefore, the dry-weather flow inspection was conducted at an upgradient inlet. The upgradient inlet had no indications of dry-weather flow. It appears that standing water is consistently present in this outfall due to backflow from the creek. Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on April 24, 2007.	*See Figure 19.*
Outfall KB-36 Outfall KB-36, located on Lexington Ave., discharges to Morses Creek. There was standing water present at the outfall location at the time of our audit. An up-gradient catch basin could not be located for inspection; however it appears that standing water is consistently present in this outfall due to poor drainage caused by scouring. Water observed in this area was free of odor, color, and turbidity. Further investigation of this outfall is required to confirm the absence of an illicit connection. All repairs should be made using methods found in the Standards for Soil Erosion and Sediment Control in New Jersey (N.J.A.C. 2:90-1). Prior to performing any repairs, the Borough should determine if any State, Federal or Local permits are required. The initial inspection of this outfall was conducted on April 24, 2007.	**Figure 20** 

Outfall KB-37

Outfall KB-37, behind the Feedland parking lot, is set back from the corner of Carnegie Avenue and Lexington Avenue. and discharges to Morses Creek. Although water was not discharging at the time of the audit, the pipe and spillway were wet more than six (6) days after a rain event, which may indicate an illicit connection to the storm sewer system. As required by NJDEP, the Borough must make three (3) additional inspections in an attempt to identify dry-weather flow from this structure. If these attempts are unsuccessful, Kenilworth must submit a Closeout Investigation Form with the Annual Report. Scouring was not present in the vicinity of the outfall; however, a tree has grown into the structure. The Town should ensure that this damage does not affect the integrity of the outfall structure. Any repairs should be made in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey (N.J.A.C. 2:90-1). Prior to performing any repairs, the Borough should determine if any State, Federal or Local permits are required. The initial inspection of this outfall was conducted on April 24, 2007.

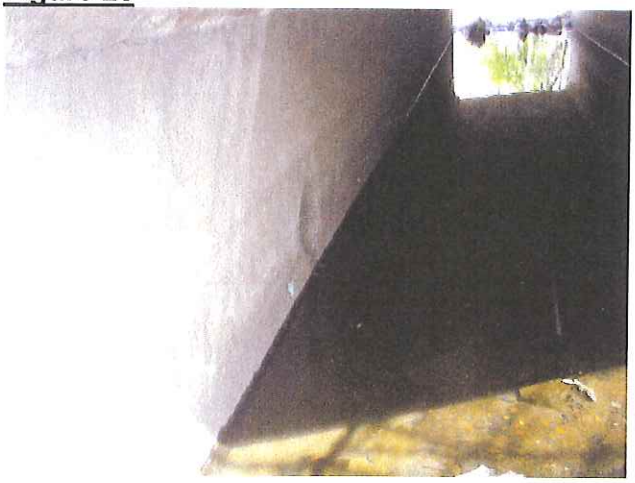
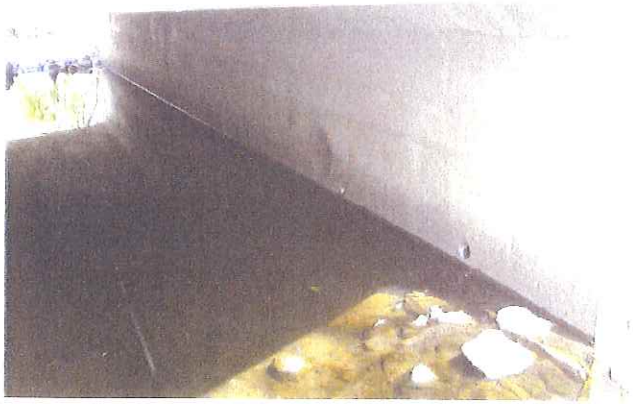
Figure 21

Outfalls KB-38, KB-39, KB-40, KB-41

Outfalls KB-38, KB-39, KB-40 and KB-41 are located under the Michigan Avenue. bridge near Lexington Avenue. and discharge to Morses Creek. There was standing water present at KB-38 and KB-39; therefore, upgradient inlets were inspected for signs of dry-weather flow. There were no indications of dry-weather flow at either inlet. It appears that standing water is consistently present in the vicinity of these outfalls due to backflow from the creek. There was no dry-weather flow observed at KB-40 or KB-41. Scouring was not present in the vicinity of the outfalls and the outfall structures did not appear to be damaged at the time of our audit. The initial inspection of these outfalls was conducted on April 24, 2007.

Figure 22

Outfall KB-38 is on the far left, northeast corner of bridge culvert; **Outfall KB-39** (distant right; southeast corner of bridge culvert; **Outfall KB-40** is on the near left; north west corner of bridge culvert; **Outfall KB-41** is on the near right; southwest corner of bridge culvert

Outfall KB-42 Outfall KB-42, located under the northern side of the Faitoute Avenue bridge, near Michigan Ave, discharges to Morses Creek. No dry-weather flow was observed and scouring was not present in the vicinity of the outfall at the time of the audit. The outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on April 24, 2007.	**Figure 23** 
Outfall KB-43 Outfall KB-43, located under the southern side of the Faitoute Avenue bridge, near Michigan Ave, discharges to Morses Creek. No dry-weather flow was observed and scouring was not present in the vicinity of the outfall at the time of the audit. The outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on April 24, 2007.	**Figure 24** 

Outfall KB-44

Outfall KB-44, located at the end of Maplewood Avenue, discharges to Morses Creek. Although water was not discharging at the time of the audit, the pipe was wet more than six (6) days after a rain event, which may indicate an illicit connection to the storm sewer system. As required by NJDEP, the Borough must make three (3) additional inspections in an attempt to identify dry-weather flow from this structure. If these attempts are unsuccessful, Kenilworth must submit a Closeout Investigation Form with the Annual Report. Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on April 24, 2007.

Figure 25

Outfall KB-45

Outfall KB-45, located at the end of Oakwood Avenue, discharges to Morses Creek. No dry-weather flow was observed and scouring was not present in the vicinity of the outfall at the time of the audit. The outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on April 24, 2007.

Figure 26

Outfall KB-46

Outfall KB-46, located under the bridge at the end of Beechwood Avenue, discharges to Morses Creek. Although water was not discharging at the time of the audit, the pipe was wet more than six (6) days after a rain event, which may indicate an illicit connection to the storm sewer system***. As required by NJDEP, the Borough must make three (3) additional inspections in an attempt to identify dry-weather flow from this structure. If these attempts are unsuccessful, Kenilworth must submit a Closeout Investigation Form with the Annual Report. Scouring was not present in the vicinity of the outfall and the outfall structure did not appear to be damaged at the time of our audit. The initial inspection of this outfall was conducted on April 24, 2007.

*** It appears that the water level is variable and should be considered when investigating this outfall.

Figure 27

CONCLUSIONS

PMK representatives canvassed the town and mapped and inspected all known and accessible municipal stormwater outfalls. In accordance with Kenilworth's Tier A Municipal Stormwater General Permit (NJG0152099), the Borough must implement an ongoing program to detect and eliminate illicit connections. The ongoing program should include responding to complaints made by residents and reports of illicit connections. In addition, Kenilworth must annually certify that an illicit connection elimination program has been developed in accordance with permit conditions to detect and eliminate illicit connections. The annual certification shall also include the number of outfalls physically inspected, the number of outfalls found to have dry-weather flow, the number of outfalls found to have illicit connections, the number of illicit connections found, and the number of illicit connections eliminated. The Borough's Stormwater Pollution Prevention Plan (SPPP) also identifies an ongoing program to again inspect all outfalls for illicit connections (if the inspection is preceded by a seventy-two (72) hour dry-weather period). As per the SPPP, the Borough must, at a minimum, continue to inspect for illicit connections at least once per five-year permit cycle. In addition, the Borough must investigate possible illicit connections reported by residents. Inspections will also be conducted while completing investigations for the Outfall Scouring Detection, Remediation and Maintenance Program.

Dry-weather flow was identified at three of Kenilworth outfalls: KB-04, KB-11 and KB-14. Non-stormwater discharges traced to their source and found to be illicit connections must be eliminated.

Evidence of intermittent flow was observed at Outfalls: KB-30, KB-37, KB-44 and KB-46. Information compiled from physical observations and field monitoring should be used to help identify potential sources. There did not appear to be any odor, color, turbidity, floatables or deposits/stains, and vegetation conditions were normal. Kenilworth should conduct a follow-up investigation to determine if the suspected intermittent flow is the result of an illicit connection or a legal discharge to the storm sewer system. The Borough must perform, at minimum, three (3) additional investigations to determine the source of the flow. If the Borough cannot identify flow during the subsequent investigations, an Illicit Connection Closeout Form must be submitted to the NJDEP describing the attempts made to identify flow discharging from the structure. If flow is identified during subsequent investigations, the Borough must follow procedures for identifying potential sources of the flow. Non-stormwater discharges traced to their source and found to be illicit connections must be eliminated.

Several of the Borough's outfall structures showed signs of physical damage or have the potential to function below their design capacity due to sedimentation or other factors. Damage was observed that could influence the operation of Outfalls KB-1, KB-11, KB-23, KB-24, KB-25 KB-30 and KB-37. Scouring was observed at Outfalls KB-1, KB-11, KB-30 and KB-36.

PMK mapped several structures that appear to convey stormwater directly from only one inlet in the roadway to the waterway below. If the Borough confirms that these structures do not receive discharges from any other connections to the system, they will not be required to be re-inspected as part of the Municipal Separate Storm Sewer System (MS4) in accordance with Kenilworth's Illicit Connection Elimination Program; however, they should be included in the Borough's Stormwater Facility Maintenance Program. A stormwater facility is defined as all stormwater conveyances, treatment or storage systems. These structures include KB-7, KB-8,

KB-9, KB-10, KB-12, KB-13, KB-15, KB-16, KB-22b, KB-22c, and KB-22d. Structures included in Kenilworth's Stormwater Facility Maintenance Program must be inspected annually to ensure they are functioning properly.

PMK was not able to fully inspect several of Kenilworth's outfalls due to physical impediments such as fences, private property rights, the unavailability of an upgradient inlet, or a combination of the above. As a result, further investigation is required at the following outfalls: KB-5, KB-6, KB-28, KB-29, KB-31, KB-34 and KB-36 for dry-weather flow, signs of intermittent flow, outfall structure damage or stream bank scouring. Please note that any municipal stormwater outfalls the Borough has or acquires ownership of, and all new municipal outfalls that are installed, must be mapped and inspected as well.

PMK would like to thank Kenilworth Borough for their assistance during the outfall mapping process. Attached to this report, you will also find copies of the NJDEP Illicit Connection Inspection Forms for all outfalls, which are required to be kept with the SPPP for NJDEP inspection. For outfalls where dry-weather flow was identified, an analysis of the outfall flow, including testing for detergents, ammonia to potassium ratio, fluoride, and temperature is required and must be reported on the appropriate Illicit Connection Inspection Report Forms. The Illicit Connection Inspection Report Forms for outfalls where dry-weather flow is present must be submitted to the NJDEP with the Borough's Annual Report and Certification. Subsequent to the completion of additional investigations for signs of intermittent flow, the Illicit Connection Investigation Closeout Form should be completed for NJDEP submission.

SPPP Form 6 – MS4 Outfall Pipe Mapping

Municipality Information

Municipality: **Borough of Kenilworth** County: **Union**

NJPDES # : **NJG0152099** PI ID #: **203021**

Team Member/Title: **Dan Ryan, DPW Superintendent**

Effective Date of Permit Authorization (EDPA): **April 1, 2004**

Date of Completion: **12/8/04** Date of most recent update: **04/09/07**

Outfall Pipe Mapping

Explain how you will prepare your map (include its type and scale, and the schedule for the mapping process). Who will prepare your map (e.g., municipal employees, a consultant, etc.)?

Current Outfall Mapping:

The Borough was divided into two sectors for the purpose of identifying and investigating outfall structures. Sector 1 entailed the western side of the Borough from approximately 22nd Street westward. Sector 2 entailed the eastern side of the Borough from approximately 22nd Street eastward. A map depicting these sectors has been included.

PMK Group mapped and identified all known Kenilworth stormwater outfalls. Sector one was completed on March 26, 2007. The second sector was completed April 24, 2007. In addition, each outfall pipe was investigated for illicit connections and scouring (See Illicit Connection Elimination Program and Outfall Pipe Stream Scouring Program).

This outfall's alphanumeric identifier was transcribed on the Borough's tax maps at a scale of 1 inch = 50 feet.

Note: The Borough of Kenilworth completed the mapping of its storm sewer system in September 2003. Outfalls are not identified on these maps. These storm sewer maps have a scale of 1 inch = 200 feet.

Updating Outfall Mapping:

The Borough of Kenilworth does not expect any alterations to the existing storm water outfalls system in the near future. However, storm sewer maps will be updated in the event that any changes occur.

Attachment:

- Attachment VI – Kenilworth Sector Map.
- Attachment VII – Outfall Pipe Mapping/Investigation Form

SPPP Form 8 – Illicit Connection Records

Municipality Information

Municipality: **Borough of Kenilworth** County: **Union**

NJPDES # : **NJG0152099** PI ID #: **203021**

Team Member/Title: **Dan Ryan, DPW Superintendent**

Effective Date of Permit Authorization (EDPA): **April 1, 2004**

Date of Completion: **12/8/04** Date of most recent update: **04/09/07**

Prior to May 2, 2006

Note: *Attach a copy of each illicit connection report form for outfalls found to have a dry weather flow.*

Total number of inspections performed this year?	*0*
Number of outfalls found to have a dry weather flow?	*N/A*
Number of outfalls found to have an illicit connection?	*N/A*
How many illicit connections were eliminated?	*N/A*
Of the illicit connections found, how many remain?	*N/A*

May 2, 2006 – May 1, 2007

Note: *Attach a copy of each illicit connection report form for outfalls found to have a dry weather flow.*

Total number of inspections performed this year?	*10*
Number of outfalls found to have a dry weather flow?	*2*
Number of outfalls found to have an illicit connection?	*0*
How many illicit connections were eliminated?	*N/A*
Of the illicit connections found, how many remain?	*N/A*

May 2, 2007 – May 1, 2008

Note: *Attach a copy of each illicit connection report form for outfalls found to have a dry weather flow.*

Total number of inspections performed this year?	*19*
Number of outfalls found to have a dry weather flow?	*1*
Number of outfalls found to have an illicit connection?	*N/A*
How many illicit connections were eliminated?	Investigations ongoing.
Of the illicit connections found, how many remain?	*N/A*

May 2, 2008 – May 1, 2009

Note: *Attach a copy of each illicit connection report form for outfalls found to have a dry weather flow.*

Total number of inspections performed this year?	
Number of outfalls found to have a dry weather flow?	
Number of outfalls found to have an illicit connection?	
How many illicit connections were eliminated?	
Of the illicit connections found, how many remain?	

Borough of Kenilworth
Outfall Pipe Stream Scouring Remediation

Outfall ID	Location	Discharges To:	Scouring	Priority	Anticipated Date of Repair	Method of Repair	Date of Completion
KB-01	Michigan Avenue (near water tower)	Unnamed Ditch to West Branch, Elizabeth River	YES				
KB-05	14th Street & Sheridan Ave.	Old Channel	Unknown				
KB-11	Between Epping Drive & Pembrook Drive	Unnamed Tributary To Rahway River	YES				
KB-28	Under Parkway @ Trenton Avenue	Unnamed Tributary To Rahway River	Unknown				
KB-30	Hoiles Drive	Morses Creek	YES				
KB-36	Lexington Avenue	Morses Creek	YES				

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *March 26, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-06* Location: *Wilshire Drive*

Receiving Waterbody: *Unnamed Tributary to Rahway River*

1. Is there a dry weather flow? Y (☒) N (☐) – Standing water.
2. If "YES", what is the outfall flow estimate? *minimal* gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *March 26, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-01* Location: *Michigan Avenue, by Water Tower*

Receiving Waterbody: *Unnamed Ditch to West Branch, Elizabeth River*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: *terminal structure*

DAMAGE: other damage (please specify) *collapsed into ditch*

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____ mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____ °F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *March 26, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *March 26, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-04* Location: *Lafayette Place*

Receiving Waterbody: *Old Channel*

1. Is there a dry weather flow? Y (☒) N (☐)
2. If "YES", what is the outfall flow estimate? *approximately 10* gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☐)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: sediment *orange*

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☐) – Investigation ongoing.

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: Jared Eudell

Date: *March 26, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: ____ Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-05* Location: *Private property: Brent Company*

Receiving Waterbody: *Old Channel*

1. Is there a dry weather flow? Y (☐) N (☐)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☐)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☐)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: _____

Title: _____

Signature: _____

Date: _____

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☐) – Investigation ongoing.

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *March 26, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *March 26, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-11* Location: *Drainage easment between Epping Dr. & Pembrook Dr.*

Receiving Waterbody: *Unnamed Tributary to Rahway River*

1. Is there a dry weather flow? Y (☒) N (☐)
2. If "YES", what is the outfall flow estimate? *approximately 5* gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: *headwall*

DAMAGE: concrete spalling/cracking _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☐) – Investigation ongoing.

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *March 26, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *March 26, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-14* Location: *Epping Drive*

Receiving Waterbody: *Tributary to Raritan River*

1. Is there a dry weather flow? Y (☒) N (☐)
2. If "YES", what is the outfall flow estimate? *approximately 1* gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☐) – Investigation ongoing.

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *March 26, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *March 26, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-22a* Location: *Faitoute Avenue Bridge @ Cranford Avenue*

Receiving Waterbody: *Unnamed Tributary to Rahway River*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *March 26, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *March 26, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-23* Location: *Bloomingdale Avenue & Trenton Avenue*

Receiving Waterbody: *Unnamed Tributary to Rahway River*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *March 26, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *March 26, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-24* Location: *Bloomingdale Avenue & Trenton Avenue*

Receiving Waterbody: *Unnamed Tributary to Rahway River*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *March 26, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *March 26, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-25* Location: *Michigan Ave. and Trenton Ave.*

Receiving Waterbody: *Unnamed Tributary to Rahway River*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *March 26, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *March 26, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-26* Location: *Michigan Ave. & Trenton Ave.*

Receiving Waterbody: *Unnamed Tributary to Rahway River*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *March 26, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *March 26, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-27* Location: *Michigan Avenue & Trenton Avenue*

Receiving Waterbody: *Unnamed Tributary to Rahway River*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____ mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____ °F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *March 26, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: ____ Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-28* Location: *GS Parkway & Trenton Avenue*

Receiving Waterbody: *Unnamed Tributary to Rahway River*

1. Is there a dry weather flow? Y (☐) N (☐)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☐)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☐)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: _____

Title: _____

Signature:_____

Date: _____

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-29* Location: *South 31st Street*

Receiving Waterbody: *Unnamed Tributary to Rahway River*

1. Is there a dry weather flow? Y (☒) N (☐) – Standing water.
2. If "YES", what is the outfall flow estimate? *minimal* gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☐) – Investigation ongoing.

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-30* Location: *Hoiles Drive*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☒) N (☐)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: *metal pipe*

DAMAGE: metal corrosion _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☐) – Investigation ongoing.

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-31* Location: *Hoiles Drive*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☒) N (☐) – Standing water.
2. If "YES", what is the outfall flow estimate? *minimal* gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☐) – investigation ongoing.

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-32* Location: *Market Street Bridge*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____ mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-33* Location: *Market Street Bridge*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____ mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-34* Location: *Carnegie Avenue Bridge*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☒) N (☐) – Standing water.
2. If "YES", what is the outfall flow estimate? *minimal* gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☐) – Investigation ongoing.

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-35* Location: *Carnegie Avenue Bridge*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____ mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-36* Location: *Lexington Avenue*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☒) N (☐) – Standing water
2. If "YES", what is the outfall flow estimate? *minimal* gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☐) – Investigation ongoing.

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-37* Location: *Carnegie Avenue & Lexington Avenue (set back)*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☒) N (☐)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: other (please specify) *wet concrete pipe*

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____ mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____ °F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☐) – Investigation ongoing.

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-38* Location: *Michigan Avenue Bridge @ Lexington Avenue*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-39* Location: *Michigan Avenue Bridge @ Lexington Avenue*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-40* Location: *Michigan Avenue Bridge @ Lexington Avenue*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-41* Location: *Michigan Avenue Bridge @ Lexington Avenue*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-42* Location: *Faitoute Avenue Bridge*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-43* Location: *Faitoute Avenue Bridge*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-44* Location: *Maplewood Avenue*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☒) N (☐)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: other (please specify) *wet concrete pipe*

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☐) – Investigation ongoing.

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-45* Location: *Oakwood Avenue*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☐) N (☒)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: none _____

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☒)

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Illicit Connection Inspection Report Form

Municipality Information

Municipality: *Borough of Kenilworth* County *Union*

NJPDES # :*NJ0152099* PI ID #: *263021*

Team Member: *Dan Ryan, DPW Superintendent*

Date: *April 24, 2007* Effective Date of Permit Authorization (EDPA): *April 1, 2004*

Outfall #: *KB-46* Location: *Beachwood Avenue*

Receiving Waterbody: *Morses Creek*

1. Is there a dry weather flow? Y (☐) N (☒)
2. If "YES", what is the outfall flow estimate? _____ gpm
   (flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)
3. Are there any indications of an intermittent flow? Y (☒) N (☐)
4. If you answered "**NO**" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.
   (NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

   If you answered "**YES**" to either question, please continue on to question #5.
   (NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. **PHYSICAL OBSERVATIONS**:

(a) **ODOR**: none _____

(b) **COLOR**: none _____

(c) **TURBIDITY**: none

(d) **FLOATABLES**: none _____

(e) **DEPOSITS/STAINS**: other (please specify) *wet concrete pipe*

(f) **VEGETATION CONDITIONS**: normal

(g) **DAMAGE TO OUTFALL STRUCTURES**:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. **ANALYSES OF OUTFALL FLOW SAMPLE:**
   * field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) **DETERGENTS**: _____mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____°F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y (☐) N (☐) – Investigation ongoing.

   If "**YES**", what is the suspected source? _____

   If "**NO**", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?
   Y (☐) N (☐)

   If "**YES**", proceed to question #9.
   If "**NO**", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y (☐) N (☐)

   If "**YES**", identify the source. _____

   What plan of action will follow to eliminate the illicit connection?

   Resolution:

   If "**NO**", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: *Jared Eudell*

Title: *Field Scientist II, PMK Group*

Signature: _____

Date: *April 24, 2007*

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Appendix C

Tax Maps with Alpha-numeric Outfall Identifiers provided under separate cover

OUTFALL ID	LOCATION	DISCHARGES TO:	DRY-WEATHER FLOW	SCOURING
KB-26	Michigan Ave. & Trenton Ave. (north)	Unnamed Tributary to Rahway River	NO[4]	NO
KB-27	Michigan Ave. & Trenton Ave.	Unnamed Tributary to Rahway River	NO[4]	NO
KB-28	Under Parkway @ Trenton Avenue	Unnamed Tribuary To Rahway River	Unknown[3]	Unknown[3]
KB-29	South 31st Street	Unnamed Tribuary To Rahway River	Unknown[4]	NO
KB-30	Hoiles Drive	Morses Creek	INTERMITTENT	YES[1]
KB-31	Hoiles Drive	Morses Creek	Unknown[2]	NO
KB-32	Market Street Bridge	Morses Creek	NO[4]	NO
KB-33	Market Street Bridge	Morses Creek	NO[4]	NO
KB-34	Carnegie Avenue Bridge	Morses Creek	Unknown[4]	NO
KB-35	Carnegie Avenue Bridge	Morses Creek	NO[4]	NO
KB-36	Lexington Avenue	Morses Creek	Unknown[2]	YES
KB-37	Carnegie Avenue & Lexington Ave (set back)	Morses Creek	INTERMITTENT	NO[1]
KB-38	Michigan Ave Bridge @ Lexington Ave	Morses Creek	NO[4]	NO
KB-39	Michigan Ave Bridge @ Lexington Ave	Morses Creek	NO[4]	NO
KB-40	Michigan Ave Bridge @ Lexington Ave	Morses Creek	NO	NO
KB-41	Michigan Ave Bridge @ Lexington Ave	Morses Creek	NO	NO
KB-42	Faitoute Avenue Bridge	Morses Creek	NO	NO
KB-43	Faitoute Avenue Bridge	Morses Creek	NO	NO
KB-44	Maplewood Avenue	Morses Creek	INTERMITTENT	NO
KB-45	Oakwood Avenue	Morses Creek	NO	NO
KB-46	Beechwood Avenue	Morses Creek	INTERMITTENT	NO

[1] Damage to outfall structure or flow restriction present.
[2] Outfall was partially or completely submerged. Up-gradient inlet could not be located for inspection.
[3] Outfall was not accessible. Inspections for flow, scouring or damage could not be conducted.
[4] Outfall was partially or completely submerged. Flow Inspection conducted at up-gradient inlet.
* This structure does not appear to meet the NJDEP definition of an outfall; however the Borough should confirm that there are no other pipes connected to/discharging into this system.

OUTFALL PIPE INVESTIGATIONS

The following table summarizes the outfall pipes identified, the receiving water body, and visual identification of the presence of dry-weather flow and scouring in the immediate vicinity of the outfall structure. A detailed description of each outfall follows.

Table 1: Kenilworth MS4 Outfall Pipe Investigation Summary

OUTFALL ID	LOCATION	DISCHARGES TO:	DRY-WEATHER FLOW	SCOURING
KB-01	Michigan Avenue (near water tower)	Unnamed Ditch to West Branch, Elizabeth River	NO	YES[1]
KB-04	Lafayette Place	Old Channel	YES[2]	NO
KB-05	14th Street & Sheridan Ave.	Old Channel	Unknown[3]	Unknown[3]
KB-06	Wilshire Drive	Unnamed Tributary to Rahway River	Unknown[2]	NO
KB-07*	Pembrook Drive	Unnamed Tributary to Rahway River	NO	NO
KB-08*	Pembrook Drive	Unnamed Tributary to Rahway River	NO	NO
KB-09*	Pembrook Drive	Unnamed Tributary to Rahway River	NO	NO
KB-10*	Pembrook Drive	Unnamed Tributary to Rahway River	NO	NO
KB-11	Between Epping Drive & Pembrook Drive	Unnamed Tributary to Rahway River	YES	YES[1]
KB-12*	Epping Drive	Unnamed Tributary to Rahway River	NO	NO
KB-13*	Epping Drive	Unnamed Tributary to Rahway River	NO	NO
KB-14	Epping Drive	Unnamed Tributary to Rahway River	YES	NO
KB-15*	Dorset Drive	Unnamed Tributary to Rahway River	NO	NO
KB-16*	Dorset Drive	Unnamed Tributary to Rahway River	NO	NO
KB-22a	Faitoute Avenue Bridge @ Cranford Ave	Unnamed Tributary to Rahway River	NO[4]	NO
KB-22b*	Faitoute Avenue Bridge @ Cranford Ave	Unnamed Tributary to Rahway River	NO[4]	NO
KB-22c*	Faitoute Avenue Bridge @ Cranford Ave	Unnamed Tributary to Rahway River	NO[4]	NO
KB-22d*	Faitoute Avenue Bridge @ Cranford Ave	Unnamed Tributary to Rahway River	NO[4]	NO
KB-23	Bloomingdale Ave. & Trenton Ave.	Unnamed Tributary to Rahway River	NO[4]	NO[1]
KB-24	Bloomingdale Ave. & Trenton Ave.	Unnamed Tributary to Rahway River	NO	NO[1]
KB-25	Michigan Ave. & Trenton Ave.	Unnamed Tributary to Rahway River	NO[4]	NO[1]