Illinois Environmental Protection Agency

Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Sanitary Sewer Overflow or Bypass Notification Summary Report

- Within 24 hours of the occurrence, notify the Illinois EPA regional wastewater staff by telephone, FAX, email or voice mail, if staff are unavailable.
- Within 5 days of the occurrence, provide a written report describing the overflow or bypass, including all information requested on this form. The permittee is required to submit this form or other equivalent written notification to the Illinois EPA at:

Bureau of Water/Compliance Assurance Section - MC #19
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

NOTE: You may complete this form online, save a copy locally, print, sign and submit it to the BOW/CAS MC #19, at the above address. You may also print the form before completing it by hand, signing and submitting it.

Failure to notify the Illinois EPA as specified may result in fines up to $10,000 for each day of violation.

Instructions: Use this form to report all unscheduled sanitary sewer overflow or bypass occurrences. Attach additional information as necessary to explain or document the overflow or bypass. For the purpose of this report, an overflow or bypass is defined as the discharge of untreated sewage from the sanitary sewer collection system to a surface water and/or ground due to circumstances such as those identified by the check boxes in the overflow or bypass details section of this form.

Use one form per occurrence. A single occurrence may be more than one day if the circumstances causing the overflow or bypass results in a discharge duration of more than 24 hours. If there is a stop and restart of the overflow or bypass within 24 hours, but it is caused by the same circumstances, report it as one occurrence. If the discharges are separated by more than 24 hours, they should be reported as separate occurrences.

24 Hour Notification Information

Permittee (Municipality or Facility Name):	Permit Number:	Person Representing Permittee Who Contacted IEPA:
Bloomington-Normal Water Reclamation Distric	IL0073504	Jake Callahan

Date:	Time:	AM	PM	IEPA Office Contacted:	Name of IEPA Employee Contacted:
6/26/21	2:25	☐	☒	Champaign	Jeff Holste

Sanitary Sewer Overflow or Bypass Details

Date and Duration of Overflow or Bypass Occurrence (complete a separate form for each occurrence):

Start Date:	Time:	AM	PM	Duration of the overflow or bypass (hours and minutes):
6/26/21	12:45	☒	☐	8 hours and 15 min

Estimated Volume of Wastewater Discharged (gallons):	WWTP Flow During bypass (report in MGD): Not applicable for a collection system SSO.	Location of the Overflow or Bypass:
unknown	16.72-17.43 MGD	SEWWTP

Circumstances Causing the Overflow or Bypass (check all that apply)

WPC 733
11/2011

☒ Rain ☐ Power Outage ☐ Equipment Failure ☐ Other (explain below)
☐ Snow Melt ☐ Broken Sewer ☒ Widespread Flooding

Provide a narrative description to further explain why the overflow or bypass occurred. For example, describe what equipment failed. What caused the power outage, or what plugged the sewer. Flooding should only be indicated, as a cause if there is significant flooding that is caused by high river, stream, or lake water levels, not just localized high water in the street.

Please see attached.

Wet Weather (if applicable)

Date(s) and Duration of Rainfall:

Start Date:	Time:	AM	PM	End Date:	Time:	AM	PM	Amount of Rainfall (inches)	Amount of Snow Melt (inches)
6/24/21	11:30	☒	☐	6/26/21	12:39	☒	☐	7.01 (NWS recorded 10")	

Contributing Soil Conditions (saturated, frozen, soil type)
saturated and flooded

Where Did the Discharge from the Overflow or Bypass Go? (check all that apply)

Provide the name of the local receiving water that the wastewater enters, which could be a nearby stream, river, lake, or wetland. If discharge does not enter directly into surface water, but indirectly by way of a ditch or storm sewer, trace the path of the ditch or storm sewer to find the receiving water.

- ☐ Runs on ground and absorbs into the soil
- ☐ Ditch: Name of surface water it drains to:
- ☐ Storm Sewer: Name of surface water it drains to:
- ☐ Surface water direct discharge:
- ☐ Basement Back-ups, (Number & use (i.e.residential, commercial) of buildings affected):
- ☒ Other, describe: discharge flowed onto saturated ground toward North Wetland tributary to LKC(creek flooded out wetlands)

Actions to Correct This Occurrence and Prevent Future Owerflows or Bypasses

Describe what actions were taken to minimize the volume of wastewater discharged from the overflow or bypass reported on this form. Also describe what actions are planned to prevent or minimize future overflows or bypassess. Illinois law and NPDES permits prohibit overflows or bypasses, unless certain specified conditions are met. Sanitary sewer overflows and bypasses may be the subject of enforcement action.

Event can be described as an act of God. Unprecidentend amount of rainfall with Little Kickapoo Creek flooded out of its banks. Other municipality manholes and District manholes were submerged from extreme flooding.

Report Completed By

Contact Person: Jake Callahan
Street Address: 2015 W. Oakland Avenue
PO Box:
City: Bloomington State: IL
Zip Code: 61701 Phone: 309-827-4396
County: McLean

Authorized Representative Contact Information

Contact Person: Jake Callahan
Title: Director of Operations & Maintenance
Street Address: 2015 W. Oakland Avenue
PO Box:
City: Bloomington State: IL
Zip Code: 61701 Phone: 309-827-4396
County: McLean

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Authorized Representative Name (Print): Jake Callahan

Title: Director of Operations & Maintenance

Jake Callahan
Authorized Representative Signature

6/29/21
Date

Bloomington and Normal
Water Reclamation District
P.O. Box 3307, Bloomington, IL 61702-3307 (309) 827-4396

June 28, 2021
Bureau of Water/Compliance Assurance Section- MC #19
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

RE: Sanitary Sewer Overflow or Bypass Notification Summary Report

Dear Sir or Madam:

The Bloomington and Normal Water Reclamation (BNWRD) is providing the following information to fully explain and document the Sanitary Sewer Overflow (SSO) event that occurred on June 26, 2021 at the Southeast WWTP. The discharge was reported to the Agency's Jeff Holste via telephone call on Saturday June 26th 2021 shortly before 2:30pm.

This SSO occurred at the level sensor monitoring manhole on the East Side Interceptor (ESI) approximately ten yards from the surge control gate. The overflow started at approximately 12:45am and was stopped by 9:00am on 6/26/21. The discharge flowed onto saturated ground toward the north constructed wetland cell. Tall vegetation around the wetland cell had become completely flooded out due to Little Kickapoo Creek being out of its banks.

The BNWRD's Southeast WWTP weather station recorded 7.01" of rain between 11:30am on 6/24/21 and 12:39am on 6/26/21. National Weather Service recorded over 10" of rain in the 72-hour period leading up to the SSO event. Fully saturated soil and record high creek levels created flash flooding throughout the community. The main contributors to the SSO was heavy rainfall and widespread flooding throughout Bloomington-Normal in a very short timeframe. The District attributes the combination of the heavy rainfall and widespread flooding as an 'act of God'.

ESI runs parallel to Little Kickapoo Creek upstream from Southeast WWTP. Staff observed Little Kickapoo Creek was entirely out of its banks. USGS Stream Gauge monitoring data indicates the unprecedented flow surge (Figure 1).

Influent flows to the Southeast WWTP were at or slightly above design maximum flow of 16.9MGD prior to and during the SSO event. SCADA trending for the Southeast WWTP indicates the surge control gate functioned as designed, the treatment plant was at maximum design capacity, and shows the rapid spike in level at the level sensor monitoring manhole (Figure 2).

Load shedding from G.E. Valley Pump Station (GEVPS) and Little Kickapoo Pump Station (LKPS) are typically initiated when ESI levels start to rise and flows at the Southeast WWTP start to increase. The rapid nature of this event coupled with the operating conditions at the District's West Plant limited any

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proactive decisions in terms of load shedding to the West Plant. Flash flooding of Sugar Creek threatened to flood the West Plant grounds for an extended period of time during these storms. From approximately 8:40pm on 6/25/21 until 3am on 6/26/21 the District's West Plant was consistently processing 87-91.5 MGD. Design maximum flow for the West Plant is 87 MGD (45 MGD full treatment and 42 MGD treated CSO). At the time this SSO started, SCADA trending levels indicate 2 feet of available storage in CSO Lagoon with CSO outfalls at Graham St. and West Slough active.

At approximately 9pm on 6/26/21 the radio telemetry communications with GEVPS and LKPS to the Southeast WWTP failed. Shortly after the communications with these two pump stations was lost operations switched to back-up communication mode to allow for remote visibility of GEVPS and LKPS from the West Plant SCADA screens. Operations had proactively positioned the control gates at LKPS for this storm event. I directed Maintenance Foreman Rick Strong to inspect/check the LKPS site at 10pm as what I was observing on SCADA appeared to be abnormal. Rick promptly reported to the location but upon arrival he determined the access road was unsafe to pass due to creek flooding in the area. Due to safety concerns I told Rick not to attempt to access the site and instead return to help address issues at the West Plant.

With flows at the Southeast WWTP continuing to be in the normal range until 11:15pm on 6/25/21 GEVPS was operating in storm mode and LKPS was sitting idle ready to load shed to West Plant.

I arrived on site at the Southeast WWTP at 1am on 6/26/21. After observing Plant conditions and the SSO I immediately directed Ian Magerl (Operator 1) to disable GEVPS. Randy Stein (Executive Director) and I drove through multiple areas of flooding from the Southeast WWTP to eventually access the LKPS site. Rick and Tom Trunnell (Chief Maintenance Foreman) arrived at LKPS immediately after Randy and I. Ian had received a LKPS valve vault flooding alarm and the LKPS wet well was near maximum level. The high wet well level and was attributed to the VFD's failing. None of the pumps at LKPS would run in automatic or hand. Lightening or power interruption caused the VFD's on all four pumps at LKPS to become unavailable. Other equipment at LKPS had blown fuses as well. Tom, Rick, and Randy were able to get two of the four LKPS temporarily hard wired by bypassing the VFD's at 4:30am on 6/26/21.

The District's Capacity Management Operations and Maintenance (CMOM) program was followed before and during this event. The District will be inspecting manhole covers on the ESI when conditions are favorable for safe access.

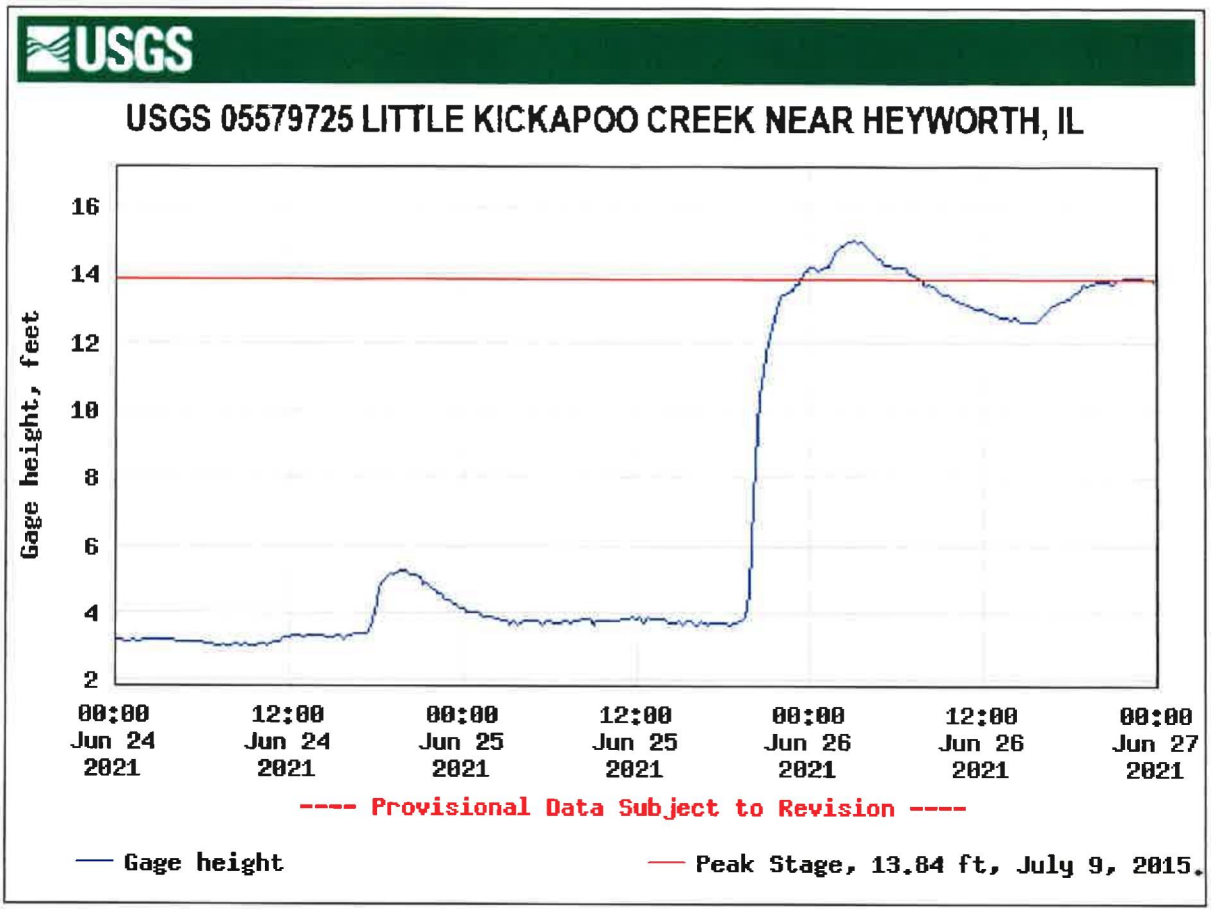
Please contact me if you have any further questions regarding this matter.

Sincerely,

Jake Callahan

Jake Callahan
Director of Operations & Maintenance

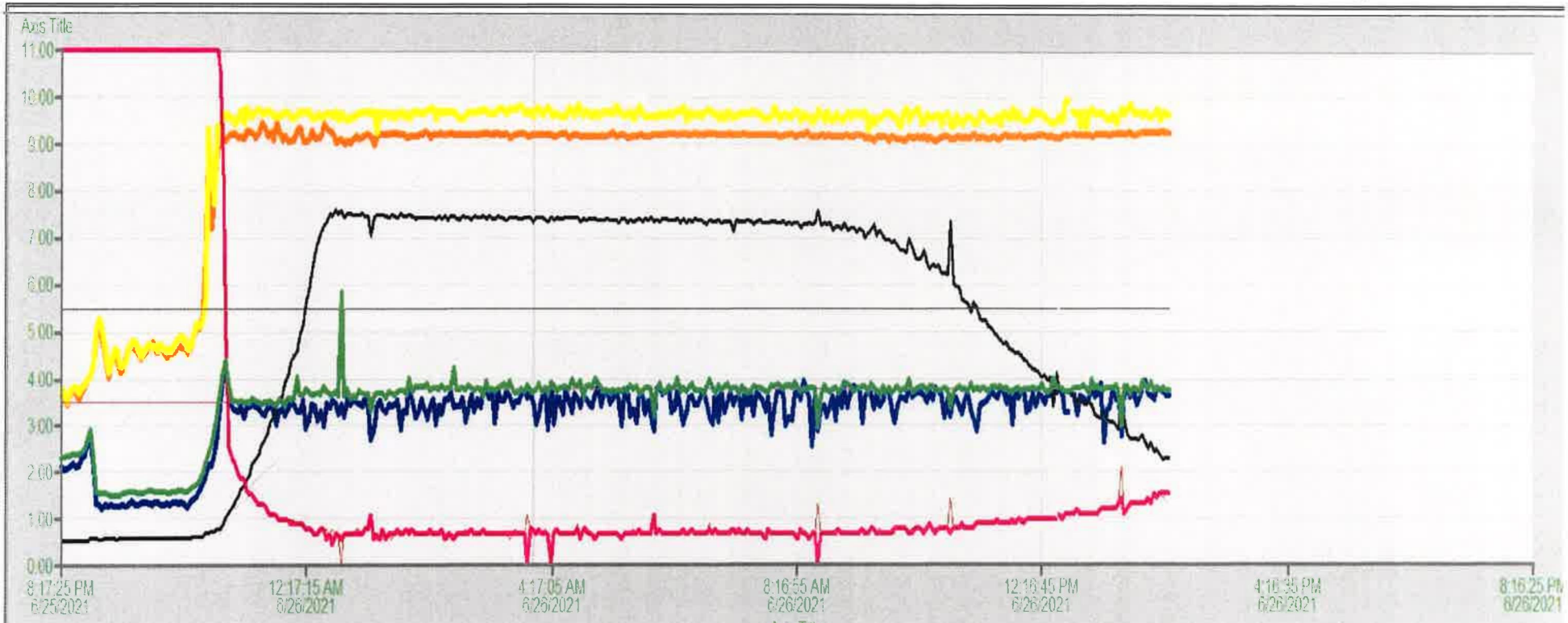
Figure 1


USGS
USGS 05579725 LITTLE KICKAPOO CREEK NEAR HEYWORTH, IL
Gage height, feet
16
14
12
10
8
6
4
2
00:00 Jun 24 2021
12:00 Jun 24 2021
00:00 Jun 25 2021
12:00 Jun 25 2021
00:00 Jun 26 2021
12:00 Jun 26 2021
00:00 Jun 27 2021
---- Provisional Data Subject to Revision ----
Gage height
Peak Stage, 13.84 ft, July 9, 2015.

Water Reclamation District

Screw Pump Wet Well Level

6/26/2021
2:18:03 PM
We treat water seriously!



Hist.SEWWTP.P4A03TSLT1.F_CV	Screw Pump Wetwell Level Transmitter #1	3.70	FT
Hist.SEWWTP.P4A03TSLT2.F_CV	Screw Pump Wetwell Level Transmitter #2	3.50	FT
Hist.SEWWTP.P4A04TMET.F_CV	Influent LS Flow Rate	16.72	MGD
Hist.SEWWTP.P4A04TMET2SMP.F_CV	Influent LS Composite Flow Rate	11.45	MGD
Hist.SEWWTP.P4A03ILVL.F_CV	Headworks Interceptor Level	23.36	FT
Hist.SEWWTP.P4A03ISGPOS.F_CV	Interceptor Surge Control Gate Position Feedback	6.97	% Open
Hist.SEWWTP.P4A03ISGLVLSP.F_CV	Interceptor Surge Control Gate Level Setpoint	3.80	FT
Hist.SEWWTP.P4A03ISGPID.F_CV	Interceptor Surge Control Gate PID Output	7	% Open
Hist.SEWWTP.P4A03ISGAMPB.F_CV	Interceptor Surge Control Gate Auto/Man PB	1	A/M

F1 Main Menu F2 Trend Menu F11 Alarm Ack F12 Alarm Scree

Figure 2