Burlington

final report

Brandt, Paul [DNR]

72961

From: Don Fitting <fittingd@burlingtoniowa.org>
Sent: Thursday, September 11, 2014 10:20 AM
To: Brandt, Paul [DNR]
Cc: Jones, Terry [DNR]; Royce, Russell [DNR]; Hoambrecker, Steve [DOT Contact]; City Burlington; Ryne Thornburg; tim Myatt; James Ferneau; Jenny Laubersheimer; Water Plant Operators
Subject: Re: Fwd: Mechanical/ electrical problem at the Gunnison Equalization Tank System/ Hawkeye Sanitary Sewer

Paul- This is the follow up report providing the metered volumes bypassed and times of bypass at the Gunnison EQ Tank and the Lucas EQ Tank, both located within the Hawk Eye Sanitary Sewer System.

Overflowing/ Bypassing from the Gunnison System began at 3:15 am and stopped at 1 pm, Wednesday, 9/10. The total metered volume that bypassed from the Gunnison System was 1.528 MG.

Overflowing/ Bypassing from the Lucas System began at 2:15 am and stopped at 10:45 am, Wednesday, 9/10. The total metered volume that bypassed from the Lucas System was 2.144 MG.

TOTAL volume bypassed from the Hawk Eye Sanitary Sewer system during and in the aftermath of the 3.74 inch rain event that occurred from 6 am Tuesday to 6 am Wednesday: 3.672 MG, with all bypassing stopped by 1 pm Wednesday.

This information is also being provided to the Keokuk Water Treatment Plant via this email.

Also, Public Works has succesfully retrieved their previously stuck Jetter nozzle and severed hose from the Gunnison Flow Regulating Chamber and sewer.

If you have any questions or need for additional information, please email me, or feel free to call me at (319) 753- 8157.

Respectfully,
Don Fitting
Burlington, Ia WWTF Superintendent
NPDES 2909001

On 9/10/2014 10:30 AM, Don Fitting wrote:

> Paul- This is a follow -up to yesterday afternoon's phone conversation and the related detailed "heads up" email (see below).
>
> We measured at the Burlington wastewater treatment plant 3.74 inches of precipitation between 6 am Tuesday and 6 am today (Wednesday). Both the Gunnison and Lucas Equalization Tank water levels, each located on a separate branch of the Hawk Eye Sanitary Sewer System, reached levels where they began to overflow to the storm sewer system. I believe the Gunnison Tank began "bypassing" this morning between 3:30 am and 4 am, and the Lucas Tank between 2:45 am and 3:15 am. They are still overflowing/ bypassing. The bypass, mixed with the storm water

within the storm water system enters the Mississippi River at Outfall Number 011. The river stage is currently 11.71 ft, and climbing; it is currently predicted to crest Saturday at 14.8 ft, just below flood stage (15.0 ft).

Public Works will need to visit the EQ Tank sites and download data from the bypass meters, review the data and subsequently provide me with the details before I can pass on specifics to you on the bypassing from those tanks. I don't anticipate that happening until sometime tomorrow; by that time hopefully all bypassing will have ceased, and the download sites will be more easily accessible (especially Gunnison).

In addition to the above bypass through 011, we also experienced some overflowing/ bypassing to a tributary to the Mississippi River during the rain event from an overwhelmed 14th Street Lift Station via Outfall no. 027. It is no longer bypassing; the duration of the bypass is unknown.

I have notified the downstream surface water potable water plant, Keokuk, regarding this event by way a phone call and am following that by copying them in on this (and any subsequent update) email.

If you have any questions or need for additional information you may email me or call me at (319) 753- 8157.

Respectfully,
Don Fitting Burlington, Iowa WWTF Superintendent
NPDES 2909001

-------- Original Message --------

Subject: Mechanical/ electrical problem at the Gunnison Equalization Tank System/ Hawkeye Sanitary Sewer
Date: Tue, 09 Sep 2014 14:26:37 -0500
From: Don Fitting <fittingd@burlingtoniowa.org>
To: Paul Brandt <Paul.Brandt@dnr.iowa.gov>
CC: Terry Jones <Terry.Jones@dnr.iowa.gov>, Russell Royce <Russell.Royce@dnr.iowa.gov>, tim Mya <myattt@burlingtoniowa.org>

Paul- I am composing this email to notify FO 6 of a situation at our Gunnison Equalization Tank System that has the potential and, given the weather forecast, most likely will result in bypassing from the tank/ Hawkeye Sanitary Sewer system sometime over the next 48 hours.

Late last week the prevailing water level within the flow regulating chamber on this branch of the Hawkeye Sanitary sewer was suggesting there was a partial blockage somewhere in the sewer system in the vicinty of the chamber. The Public Works Street and Sewer crew took the department's jetter last Friday to the chamber and began running the line from a cleanout downstream of the chamber in an effort to clear the obstruction. In doing so, the jetter's nozzle became stuck. Efforts to enable them to retrieve the stuck head, believed to be inside the surcharged chamber (with its flow regulating mechanical mechanism/ slide gate apparatus) to date have failed (Saturday, yesterday and now today, with the rains). In order to get to the stuck jetter head (and crew-severed hose) the crew must pump down the chamber and the surcharged upstream sanitary sewer; all pumped sanitary flow (Friday and Saturday) has been pumped into the SW corner access to the 1 MG Gunnison Equalization Tank with the Tank's effluent valve effluent (at the NE

corner of the tank) OPEN to allow the pumped water to exit the tank to the downstream sewer (downstream of the sewer's flow regulating chamber and cleanout).

Last week pant personnel discovered the Tank's level transducer was no longer working; it read the level of the Tank as being 1.0 ft whether the Tank was actually empty, 1.0 ft or 2.0 ft etc. A new transducer was ordered and we have received it but it has yet to be installed and won't be installed until the weather clears/ the ravine in which the Tank is located dries up and is accessible (can flood over the tank when there are heavy rains). We hope we are able to get in to replace the transducer Thursday but that remains to be seen; weather reports are not always reliable (and rain is forecast for Friday). Public Works, too, will attempt once again to pump the sanitary sewer (to the EQ Tank) and retrieve their jetter nozzle and hose from the Regulating Chamber if not tomorrow, then Thursday, or as soon as conditions allow, as well. Of course, they will also continue to attempt to remediate the thus far resistant partial blockage as originally planned.

The Lucas Equalization Tank system located on the other branch of the Hawkeye Sanitary sewer system is functioning properly, has taken on some sanitary seweage during today's rain events and is in the process of draining back into the system to Market Street lift station as "space" at the lift station allows; the effluent valve on this tank is incrementally OPENING within the parameters of the PLC/ process control program. The opening valve hasn't reached the point yet that the rate of outflow/ effluuent has halted the rising level but should soon and hopefully allow the tank to completely empty before the next rain event later today.

Things are different for the Gunnison tank; with the level transducer not functioning, the PLC/ process control program cannot function respond/ adjust Automatically to prevailing conditions. We are operating in the "dark" (I don't know what the level of the Tank is at any given time). We have been Manually OPENING the effluent valve of the Gunnison Equalization Tank in an effort to keep the level within the tank as low as possible.

The level transducer in the Gunnison EQ Regulating Chamber on the sewer is functioning and that sewer system is directly connected to the Tank via the overflow to the tank so, indirectly, I can tell if/ when the tank has reached a flooded level/ a the point of overflowing/ bypassing to the storm sewer system. I feel I can comfortably say it has not yet reached an overflow level but that may change as the day/ night/ tomorrow passes with the rains events forecast.

I will update FO 6 tomorrow.

If you have any questions or need for additional information you may email me or call me at (319) 753- 8157. I am generally here until 4:40 pm.

Respectfully,
Don Fitting Burlington, Iowa WWTF Superintendent
NPDES 2909001