

Warner, Mike D.

Subject: FW: Shirley Dr. Flood Problem Investigation 05/26/20 Summary

From: Highway <highway@warrentownship.net>
Sent: Wednesday, May 27, 2020 12:57 PM
To: Jozefowski, Jacob <JJozefowski@lakecountyil.gov>; Warner, Mike D. <MWarner@lakecountyil.gov>
Subject: RE: Shirley Dr. Flood Problem Investigation 05/26/20 Summary

Jacob,
Thank you for your thorough work. I sure appreciate you assistance.

Amy Sarver
Highway Commissioner
Warren Township
17801 W. Washington Street
Gurnee, Illinois 60031
847-244-1101, Ext. 3

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From: Jozefowski, Jacob [<mailto:JJozefowski@lakecountyil.gov>]
Sent: Wednesday, May 27, 2020 11:52 AM
To: Warner, Mike D. <MWarner@lakecountyil.gov>; Highway <highway@warrentownship.net>
Subject: Shirley Dr. Flood Problem Investigation 05/26/20 Summary

Hi All,

As promised I am following up on the Shirley Dr. Flood problem Investigation. I updated the web app which can be accessed [here](#). Due to file size, the drone videos are taking a long time to upload. I will send a link to the videos in a separate email.

First off we noticed a potential illicit discharge at Shirley Dr. (Image 1). The Lake County Health Department is going to investigate the potential illicit discharge. The water level at Shirley Dr. was 661.1 ft amsl and there were no identified obstructions up to the culvert on the golf course property.

The water level upstream of the culvert at the golf course property is 661.1 ft amsl, downstream it is 660.5 ft amsl. So the culvert is causing a 0.6 ft increase in water level. This is due to a pile of concrete/other debris that covers half of the culvert on the upstream end (Image 2). The property owner stated that this was part of the original culvert design, Mike Warner is skeptical of this claim. I will follow up with Mike Warner to see if there is anything we can do about this concrete pile. Additionally, the golf course acknowledged that the culvert was blocked during the last few rain events because all employees were furloughed. Now that the employees are back they will inspect and clear the culverts on a regular basis. The staff also mentioned that they hired a contractor to do beaver trapping throughout the entire golf course property. Removing this pile may help during smaller flood events, but during large events the difference may not be perceivable because the water flows through the floodway to the east of the culvert at volumes much larger than the culvert is capable of conveying.

The next observed obstruction is at the culver near the Osprey Lake Apartments (Image 3). The water levels was 660.5 ft amsl upstream of the culvert, and 659.7 ft amsl downstream of the culvert, so the culvert is causing a 0.8 ft increase in upstream water levels. I will contact the Gurnee enforcement officer to get this culvert cleared. We followed the stream to the confluence of the mainstem and did not observe any other obstructions. The water level was 659.7 near the confluence of the mainstem.

Also, I think it is important to acknowledge that the properties that are complaining about flooding are within the regulatory floodway and we are receiving record amounts of rainfall. Addressing these drainage issues will help alleviate some of the flooding, but will not completely eliminate the flooding issue.

Thank You,

Jacob Jozefowski
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