

Sugarhill Drainage Issues

by John Doty Thursday, June 18, 2020

Sugarhill has one drain known as the out-fall pipe. It is a County controlled pipe that runs from behind the strip mall where Castaways is. It is at it's lowest point. That point allows only a 10" drop to Jensen Beach Blvd. drainage system. In the past when problems were happening in the low lying areas of Sugarhill residences attempted to get the County to lower that pipe. It was determined if the pipe was lowered it would allow the drainage system running along Jensen Beach Blvd to backup into Sugarhill making the situation worse.



If you will notice from the picture, as of Monday, (evening June 15th), the out-fall pipe was almost to it's stopping point where all the remaining water that is retained will stay until evaporation or ground seepage removes or lowers it. This unfortunately is the design created by the Sugarhill founding fathers with the subdivision's engineers and the County engineers. This is possibly not their fault that problems exist since the entire area just won't allow rapid runoff and the retention areas were the only option.

There is disagreement among some Sugarhill residences as to the amount of rain that fell on and around June 10th. One thing is certain it was a huge amount. On the morning of June 11th. I removed a wire mesh the county placed over the pipe that had caused the pipe to plug up early on. It has taken 5 days to drain the excessive high water the plugged pipe created. I believe the entire drainage and retention system gained a 1-1/2 to 2 feet rise above normal because of the plugged pipe. Many neighbors gained large ponds on their properties like they had never seen without any backup of the retention system or flow from other properties.

This rain event begs the question of weather or not this was an unusual event or a new normal. New issues are driving the Savannas Preserve to start researching a new very large retention pond in their area near us. FEMA is assisting homeowners in the low-lying N Sewalls Point Road area to raise their homes up on stilts. The Miami area is investing huge dollars in pumping systems and this one rain event we all experienced, has caused the area of Hobe Sound to begin the review of pumping systems. I personally believe in the science of global warming and it's potential for change. Miami has determined the rising oceans are causing a rise in ground water levels. Maybe this is why Savannas Preserves believe they need more retention areas.

With all of this being said there are not too many options available to Sugarhill. Of course any of the covenant drainage swales need to be cleared of the overgrowth so there won't be as much of a problem of rapid drainage. Neighbors downstream of flooded yards may have their flow blocked by other neighbors, nothing the board can address unless is a swale defined by our covenants to be kept clear.

Our 3 year ongoing plan devised in a board meeting during the time we had the culvert/bubbler system cleaned:

- Year 1 clear the culverts/bubblers, something we did last summer.
- Year 2 clear the worst bylaws-defined swale easements and require the residences to keep them cleared (this years dry-season project).
- Year 3 continue the same swale clearing.

Regarding the potential of backed up retention areas, I have to assume the largest retention lake that exists on both sides of the tennis court, has a berm that controls the height of the retention. Lowering this berm might help with the exception of rapid backup of the drainage canal, that handles the overflow, is full. With full canals lowering the berm will be a useless venture unless the out-fall pipe is still flowing. The one, and as I see it, the only fool proof remedy is to develop a pump to out-fall pipe system that will lower the retention areas thus increasing their capacity.

A pump-to-out-fall-pipe option would not be useful and would most likely be rejected by the County if it were pumping once flood water reached the outfall pipe. This would be adding excessively to the County's own flood issues. The out-fall pump would only activate once the out-fall pipe was no longer flowing water. The effect of this would be to lower Sugarhill's high water and increase retention capacity.

Above and beyond all solutions it is a must to have the out-fall pipe cleared of potential plugging up. Debris has plugged the pipe numerous times in the past. It's not good. It may eventually cause homes to be flooded if storms are getting worse and ground water is getting higher. Currently this is the main focus of the board (6-18-20).

What I propose to be done around the area of the out-fall pipe is a 4' 12 gauge wire fence that circles the head of the pipe with a radius of 10'. It would be installed with metal T posts every 4'. The wire mesh would be 4" x 2". That is more than enough to keep out large clogging debris. The reason the fence would be a complete circle is to deter children. The top dry area a simple gate would be installed with a lock to deter children. Children playing in the pipe is dangerous.