

**HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 368:**  
**INFORMATIONAL HURRICANE HARVEY SUMMARY RELEASE**

**PURPOSE**

The purpose of this release is to inform the public of what Harris County Municipal District No. 368 (the “District”) did to prepare for the storm, the actions that were taken during the storm, particularly in the Northern Point detention pond (the “Detention Pond”), and the summary of events discussed at the September 7, 2017, regular Board Meeting at 6:30 p.m., at Graceview Baptist Church.

The Board of Directors would like to thank all of those residents that attended the September 7, 2017, regular Board Meeting at 6:30 p.m., at Graceview Baptist Church to voice their concerns and questions regarding the events of Hurricane Harvey.

**PREPARATION**

The Board of Directors is always focused on diligently working to reduce potential flooding within the District. Previously, the District owned a portable stand-by generator to operate the Northern Point Water Pump Station (the “Pump Station”). The District recognized that a permanent stand-by generator would provide for a much more reliable system. In early 2012, the District completed the installation of a generator, which was sized to operate all three pumps should the Pump Station lose power.

In preparation for the storm, the District’s Operator, Eagle Water Management, ensured that each of the District’s facilities were operating properly. It should be noted that the District’s water and sewer facilities continued to operate without interruption throughout the entire storm event.

The District had a contractor pull and inspect all three submersible pumps at the Pump Station the day before Hurricane Harvey reached the lower Texas coastline and staged the three pumps to run so as to allow for the largest amount of water possible to be pumped from the Detention Pond. All three of the pumps were programmed to start as soon as the Detention Pond received water.

Additionally, the District’s Operator ensured that all generators had enough fuel in the event of any power interruptions.

**STORM EVENT**

Before the storm’s outer rain bands made its impact felt on Harris County, the District’s Operator installed a District-owned portable diesel pump, and placed it at the deepest part of the Detention Pond to assist in relieving the flooding at the earliest moment that water was detected during the storm event.

During the most intense part of the rain storm, the Pump Station flooded, tripping a main breaker and shutting down utility power to the Pump Station. Because the District had the generator at the Pump Station, within 5-10 seconds of the breaker being tripped, the generator started and transferred standby power to the Pump Station. Within 10 seconds of transferring power, all three of the District's pumps immediately resumed pumping water. It should be noted that the District's three main pumps were off-line for approximately 20 seconds. It should also be noted that, with the exception of power transferring to the stand-by generator, all three of the District's pumps ran uninterrupted throughout the storm event until the pond was empty.

During the storms, the District's Operator verified proper operation of the Pump Station and all other District facilities pump stations and manually operated the portable diesel pump in an attempt to pump water to stay ahead of the rainfall. However, rain was simply falling too fast. At some point during the storm event, only after the Operator's crew was forced to leave the Pump Station site for safety reasons, did the portable diesel pump run out of fuel.

Complicating the flooding issue in the District was the fact that the Burlington Northern Santa Fe railroad right-of-way was inundated with water, causing the portable diesel pump to only circulate water from the Detention Pond, to the railroad right-of-way, and then back into the Detention Pond.

#### **DISTRICT-OWNED PORTABLE DIESEL PUMP**

It should be noted that at the time the portable diesel pump ran out of fuel, it was determined that it was only circulating water that had already been pumped out of the Detention Pond and re-circulating flood water between the flooded railroad ditch and the Detention Pond and was therefore not providing any meaningful assistance in the efforts to reduce flooding.

At that time, the District's Operator was instructed to move the District's portable diesel pump to Northpoint Blvd. as soon as it was safe to do so. Unfortunately, following those instructions to the Operator, at some point the District experienced some vandalism to that pump, allegedly by a resident from the Memorial Springs subdivision, which rendered that pump inoperable.

#### **RENTAL PORTABLE DIESEL PUMP**

Prior to the vandalism and disabling of the District's first portable diesel pump, the District was able to locate and rent another portable diesel pump to move some of Northern Point's storm water into the Ashford Grove drainage system in an attempt to provide some relief to the Northern Point area. This route was chosen to limit the impact to the receiving stream.

#### **STORM DATA**

From the evening of August 25<sup>th</sup> until the afternoon of August 29<sup>th</sup>, the Harris County Flood Warning System rain gauge on Willow Creek near State Highway 249 measured 26.6

inches of rainfall. The Harris County Flood Control District has noted that a 500-year storm event for the area in which the District lies is between 19-21 inches over the course of a 4 day period. That data gathered by the rainfall gauge indicates that the District experienced the forces of a massive storm that was substantially stronger than a 500-year event.

Preliminary calculations from the District's Engineer indicate that to sufficiently drain and keep all of the water out of the streets and detention pond within twelve hours, it would have required the work of all three of the District's main pumps in conjunction with approximately one hundred and thirty (130) additional portable diesel pumps operating in parallel.

### **DESIGN AND CONSTRUCTION**

Any run-off water that exceeds a 2-year storm event will flow through the streets to a stormwater detention basin. Stormwater systems, which include the streets, storm sewers, and detention basins in Harris County, are most typically designed for a 100-year storm event. The design of the stormwater drainage and detention system is regulated, reviewed and approved by the City of Houston, Harris County and the Harris County Flood Control District (the "Regulations").

The Detention Pond in Northern Point was constructed as a "pumped detention" pond by that subdivision's developer. The District is required to permit construction of any facility which complies with the Regulations. The Detention Pond complies with the Regulations.

Prior to this storm event, the District's Engineer had been working diligently with the City of Houston, Harris County and Harris County Flood Control District to negotiate a revised drainage plan and agreement, and to receive authorization to pump a higher flow from the Detention Pond. This continues to be the District's plan. Prior to the storm event, the District's Engineer had been scheduled to meet with Harris County on August 28<sup>th</sup> to discuss a revised drainage plan. Unfortunately, due to the flooding, this meeting has been re-scheduled.

Also, the District had planned to review and authorize bidding for construction items related to improving drainage, but because of the events of the storm, bidding did not take place and has been rescheduled.

The reality of this storm event is that although the District's facilities were designed and constructed in accordance with City of Houston, Harris County and Harris County Flood Control District Regulations, the facilities were not designed to handle the unprecedented amount of rain that accompanied Hurricane Harvey. The District simply could not have foreseen that that amount of water would fall within this District community.

### **COMMUNITY SAFETY**

The District has a vested interest in keeping all parts of the community safe and it will continue to work with all regulatory agencies to ensure that a revised drainage plan and

agreement come to fruition. The District is optimistic that following the events of Hurricane Harvey that these agencies will appreciate the gravity of the District's situation and realize why the District has requested that the drainage plans and construction plans for the detention basin/pond be modified.

Additionally, the residents of the District can rest assured that the Board of Directors is adamant about investigating any claims by residents of other subdivisions interfering with the drainage of the Northern Point neighborhood, or claims of other neighborhoods pumping water into the Northern Point area. Please submit all information regarding any suspicious activities through the District's website.

Furthermore, if any residents have any pictures, videos or accounts of water flowing into Northern Point from areas in which the water is not supposed to flow through the Northern Point subdivision, please submit these entries to the Board of Directors for review so the Board can review these items with the District's Engineer.