

Post Irma Report

The Lehigh Acres Municipal Services Improvement District Commissioners and staff were in full alert prior to, during and after Hurricane Irma. It was a very trying time and we performed admirably. LA-MSID's stormwater system is a complex series of 100+ weirs (a structure that can control water levels, by gravity, motorized gates and/or manually operated gates. Thirty of the weirs have all available technology including telemetry, weather stations and electrically operated gates.

Two weeks prior to Hurricane Irma, storm invest 92L, was close to a 100-year rain event that dropped almost 10 inches of rain across the District and that's not to mention the regular wet-season rainfall that we generally receive in June, July, and August. A few days following that event, Irma formed in the Eastern Atlantic Ocean and the State of Florida was projected to be in the center of the Cone of Uncertainty, in 8 to 9 days.

Your LA-MSID staff began releasing water from the District and within a week and just prior to the landfall of Irma, our system was prepared for high levels of rainfall. Harns Marsh, our flagship stormwater treatment and storage facility was drained to elevation 13.04' NGVD, the same elevation as the Orange River, with seven feet of room available for storage. Harns Marsh's berms are at elevation 20.0 NGVD. Starting on Friday September 8th, 2017, two days before Irma's arrival, LA-MSID crews were stationed at the District's headquarters building and working around the clock 24 hours a day.

Your LA-MSID Commissioners, spearheaded by Chairman Michael Welch, called an emergency meeting two days prior to landfall and provided staff with all of the necessary tools and funding to handle all emergency situations.

Many LA-MSID Commissioners and the first team of staff hunkered down in our facilities so that following the storm we could respond immediately. Irma made landfall in the late afternoon on Sunday September 10th, 2017, and proceeded to dump up to 17 ½ inches of rain in areas of the District, along with a great deal wind damage. Staff was able to track the water levels across the District with our telemetry system until early evening on September 10th when the winds took down the telemetry antenna. The system continued to record the data but staff did not have real time access to it until after the hurricane passed and the antenna was repaired.

LA-MSID's first hurricane crew was chomping at the bit to get out of the building after Irma had passed. Around midnight on September 10th, LA-MSID crews split up in a couple of lifted 4x4 trucks to get out and do first assessments of the damage and flooding. Trees were down all over the District and many of the roads were impassable by powerlines, storm debris and flooding. Encountering too many dangerous roads, the crews were called back in around 2:30 am until daylight. By morning the water had receded in many locations and multiple power crews, Lee County DOT and LA-MSID crews were out cutting their way through closed roads and getting a better picture of the widespread damage.

The AIM Report that you can read at: [concluded](#) that this was a 1000-year storm event (a storm that you would expect once every 1000 years). Our system performed commendably by reducing the effects of a 1000 year storm down to roughly a 25-year storm event (a storm that you would expect once every 25 years). With the amount of rainfall the area received you would expect more flooding than was encountered.

- Incidentally, Florida stormwater systems like LA-MSID's are designed to a 25-year storm standard.
- Roads are typically designed to a 10-year storm standard, in a 25-year storm or greater, you should expect standing water on the roads.
- Current house pads and commercial buildings are designed to have the lowest finished floor elevation above a 100-year storm event. Properties developed before the Flood Disaster Protection Act of 1973 may not be built to this standard.
- LA-MSID controls and maintains the canals and lakes in Lehigh Acres, all road ditches are controlled and maintained by Lee County.
- LA-MSID only controls and maintains its outfalls to the edges of the District. Downstream of the District is maintained by Lee County and SFWMD so blockages between our system and the Caloosahatchee River are not under our control and they can affect the performance of the canal system.

Conclusion: Your stormwater system in Lehigh Acres is one of the most advanced stormwater systems in all of Southwest Florida, if not the whole state. The system performed very well and it greatly reduced the impacts of Irma. The storm event was one of the largest rain events southwest Florida has ever recorded. LA-MSID Commissioners and staff will always continue to work on improvements and upgrades to the system so that it always performs as well as it did even as Lehigh Acres continues to grow and expand.