



# **The Sewerage & Water Board**

## **OF NEW ORLEANS**

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July 16, 2019

Dear Mayor Cantrell, Honorable Members of the New Orleans City Council, and Orleans Parish Delegation:

This report is delivered in accordance which Revised Statute 33:4091, Section F, which states: *“In addition to the other requirements of this Section, the board shall send a report, by electronic mail, to the members of the Orleans Parish legislative delegation and the members of the governing authority of Orleans Parish detailing the pumping and electrical power of its facilities and the available manpower no later than twenty-four hours prior to a hurricane entering the Gulf of Mexico as determined by the National Weather Service and no later than forty eight hours after a flood watch or warning or thunderstorm watch or warning is issued by the National Weather Service for any area of Orleans Parish.”*

This report addresses the status of the Sewerage and Water Board’s (SWBNO) manpower, pumping and power assets from Wednesday, July 10 through Sunday, July 14. During that span of time, the National Weather Service issued a number of flood, thunderstorm, and tropical weather warnings for Orleans Parish. Below is a timeline tracking SWBNO’s response to these weather events.<sup>i</sup>

**Wednesday, July 10:** New Orleans experienced a 100-year storm on the morning of July 10, as unexpected intense rain fell over the city. *Approximately 8.5” of rain fell in many areas of the city in less than three hours* – the equivalent of 4.9 billion gallons, or more than five Superdomes full of water. This rainfall rate far outpaced the capacity of SWBNO’s drainage system, as it would any drainage system in the country. Although the intensity of the storm resulted in significant street flooding,

the water receded rapidly - the direct result of SWBNO's drainage assets performing as intended.

**Operations Summary of Significant Events on July 10 (Preliminary Data):**

- 118 of 120 drainage pumps were available at the outset of the storm.
- All turbine generators, frequency changers, and EMD's were available at the outset of the storm.
- At DPS 1, a lightning strike took out Entergy power, causing two of the eight drainage pumps at DPS 1 to go offline (pumps F and G).
  - To offset the impact, the remaining pumps were loaded in order and brought online as quickly as possible. During that process, pump C was knocked offline due to another lightning strike. Pumps C and G were both eventually brought online as soon as they were available, and the station was at full pumping capacity by around 9 a.m.
- At DPS 5, two of four pumps went offline due to an internal electrical issue and were unavailable for a period of time during the event. The exact cause is under further investigation. In the meantime, an electrician and an extra supervisor will be stationed at DPS 5 to help avoid future issues.
- As is typical during a storm, lightning occasionally struck feeders, knocking the attached pumps offline. Those routine outages were resolved quickly, with no identifiable impact on drainage.

**Thursday, July 11:** On Thursday, SWBNO assessed the performance of its assets during the July 10 rain event and prepared for the onset of Tropical Storm Barry.

**Operations Summary of Significant Events on July 11 (Preliminary Data):**

- 118 of 120 drainage pumps were again available ahead of the storm.
- All turbine generators, frequency changers, and three out of five EMDs were available ahead of the storm (two EMDs were offline for minor repairs after the July 10 rain event). Even with two EMDs out of service, the power system is able to generate 75MW – far more than the approximately 50MW required for the drainage system to operate at full capacity.

**Friday, July 12 – Saturday, July 13:** On Friday and Saturday, the SWBNO Emergency Operations Center (EOC) was fully staffed at Level 1 and all essential personnel were on site to address the potential impacts from Tropical Storm Barry. Thankfully, New Orleans was spared the brunt of that storm and experienced

relatively little rainfall over the course of 48 hours. We experienced no significant power or drainage issues during the storm, based on preliminary information.

**Operations Summary of Significant Events on July 12-13 (Preliminary Data):**

- 117 of 120 drainage pumps were available during this period. We proactively took a feeder located close to the Mississippi River out of service to avoid damage due to high river levels; this limited DPS 11 to three of its four pumps (essentially removing redundancy, but retaining the ability to operate at designed capacity).
- All turbine generators, frequency changers, and four out of five EMDs were available throughout the storm. One EMD was placed back online, bringing the total power capacity to 77.5 out of 80 total possible megawatts.
- SWBNO crews monitored all underpass pump stations for standing water throughout the event.

**Sunday, July 14:** The watches and warnings associated with Tropical Storm Barry were canceled on Sunday, and the SWBNO EOC was deactivated around noon.

**Manpower**

SWBNO activated its EOC on Wednesday, July 10 at Level 3 and elevated EOC status to Level 1 on Friday morning, July 12. For the duration of the activation, SWBNO essential staff were on site and monitoring all three of the utility's systems – drainage, water and sewer. Manned pumping stations were staffed with emergency personnel 24 hours a day, with overlapping shifts for additional manpower. Unmanned stations, with the exception of four stations in rural areas, were assigned dedicated personnel. Additionally, SWBNO staff assessed the status of drainage canals and pump station screens throughout the event, responding as necessary to reports of debris or blockage.

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<sup>i</sup> Please note that this is preliminary information. SWBNO's operations team will conduct a full after-action analysis in the coming days. We will provide updated information as necessary.