# The Sewerage & Water Board

## OF NEW ORLEANS

625 ST. JOSEPH STREET

504.529.2837 OR 52.WATER

www.swbno.org


**December 19, 2022**

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."*

On Wednesday, December 14, the National Weather Service issued a series of flash flood and tornado warnings associated with a strong storm system that moved through Orleans Parish between approximately 3:00 p.m. and 6:00 p.m The status of SWBNO's pumping and power equipment before and during the event is detailed below.

**STORM IMPACTS**

This storm system produced both intense wind and rain across the city. The maximum rainfall was 2.45" at Drainage Pumping Station 14 in New Orleans East. The Broadmoor and Mid-City neighborhoods also saw rainfall close to 2". The highest intensity rainfall reached 6" per hour at DPS 17, at the Central Yard facility. There were several reports of localized street flooding as the storm moved through the metro area which subsided once the system moved towards the east.

The pumping and power equipment generally performed as expected, with some operational challenges that were addressed during the event (detailed below).

## PUMPING AND POWER

Over the course of the storm event, SWBNO operators had to clear and reset three electrical feeders that distribute power between DPS 3, DPS 17, and DPS 5. Once the feeders were reset, which took approximately 5 minutes, power supply along these feeders resumed. The impact of the feeder interruptions was a loss of power to the two constant duty pumps at DPS 5. No other pumps were affected by the feeder trip events.

The Algiers Water Treatment Plant was impacted by tornado damage to Entergy's electrical distribution system. SWB operated the plant on its backup generator until Entergy power was restored the morning after the storm. There were no adverse impacts to the system.

Below is the status of SWBNO's pumping and power equipment at the outset of the event.

### Drainage Pumps:

A total of 95 of 99 drainage pumps were available at the outset of each event:

| | |
|---|---|
| **DPS 6:** | **I pump out of service, awaiting shaft replacement; return to service Q1 2023** |
| **DPS 10:** | **No. 1 pump out of service; repair contract has been advertised** |
| **DPS 13:** | **No. 4 pump designated emergency use only; return to service TBD** |
| **DPS 16:** | **No. 2 pump out of service; repairs underway by contractor** |

The remaining drainage assets performed as expected during these events, with no significant issues reported.

### Underpass Stations:

All 27 underpass station pumps (UPS) were available and ready for use during the event. There were no reported issues with the underpass pumps.

**Power:**

Turbines 4, 5 and 6 and all frequency changers were utilized for this event. All five EMDs were also available for use. The remainder of the power assets were utilized as needed and performed as expected during the rainfall event.

| **Unit*** | **Frequency** | **Capacity in MW** | **Available** |
|---|---|---|---|
| T4 | 25 Hz | 20 MW | 18 |
| T5** | 25 Hz | 20 MW | 17.5 |
| Carrollton Frequency Changers 1&2 | Converts 60 to 25Hz | 8.5 MW | 8.5 |
| Station D Frequency Changers 3&4 | Converts 60 to 25Hz | 12 MW | 6 MW |
| West Bank Power Complex (Algiers Water Treatment Plant) | Converts 60 to 25Hz | 2.5 MW | 2.5 |
| Five EMDs | 25Hz | 12.5 MW (total) 2.5 MW (each) | 12.5 |
| T6 (via Plant Frequency Changer) | Converts 60 to 25Hz | 3.75 MW | 3.75 |
| | | Total 25 Hz: | **71 MW** |
| | | | |
| T6 | 60 Hz | 22 MW | **22 MW** |

*****T3 has been decommissioned as of May 2021, and T1 has been decommissioned as of June 2022. Both units have been removed from this table.

** T5 was tested up to 17.5MW during the pre-start and commissioning stage.

**STAFFING**

Of New Orleans' 24 drainage pumping stations, some are staffed, some run remotely, and some are staffed as circumstances dictate. For this event, all stations were staffed appropriately.