



# **The Sewerage & Water Board**

## **OF NEW ORLEANS**

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**December 31, 2024**

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

This report is delivered in accordance with 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.”*

A Flash Flood Warning was issued for Orleans Parish on December 28 from around 9pm to 12am the following day, due to a series of strong thunderstorms that moved through the area that evening. The status of SWBNO’s pumping and power equipment before and during the events is detailed below.

### **STORM IMPACTS**

The rain began around 8 am on December 28<sup>th</sup> and continued until just after 3 am on December 29<sup>th</sup>, with the majority of rainfall occurring between 9pm and 11pm on the 28th. The average recorded rainfall at all pumping stations was 1.4 inches. The stations reporting the highest recorded rainfall were DPS 13 in Lower Coast Algiers at 2.3 inches, and DPS 11 in Lower Coast Algiers at 2.2 inches. The average rainfall intensity across all pumping stations was 2.3 inches per hour. The station reporting the highest rainfall intensity was DPS 11 in Lower Coast Algiers at 3.6 in/hr. A rainfall rates exceeding 3 in/hr was recorded at DPS 14 in the NO East.

No reports of flooding or concern were noted by the Real Time Crime Center (RTCC).

## PUMPING AND POWER

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

### **Drainage Pumps:**

A total of 87 of 93 drainage pumps were reported in service at the outset of the event. *Note that the number of major drainage pumps has been revised from 97 to 93, as the result of reclassifying the four small pumps at DPS Grant. These four pumps are considered constant duty pumps (8 cfs each) in comparison to the 2 major pumps at the station (70 cfs each).*

**DPS 10:** No. 1 pump (60-hz) out of service. Vendor selected to refurbish pump. Pump installation is in progress, with RTS expected in January 2025. It was originally anticipated that this pump would return to service by the end of December 2024; however additional work is being performed by SWBNO personnel to complete installation.

*3 additional pumps were available at this station*

**DPS 13:** No. 4 pump (diesel pump) is for emergency use only. Additional drainage funding is needed to move forward with repairs.

*5 additional pumps were available at this station*

**DPS 14:** No. 3 and No. 4 pumps out of service due to mechanical issues. #3 repairs will be completed via contract, with RTS anticipated in Q1 2025. #4 is being repaired in-house, with RTS anticipated in January 2025, based on internal resource availability.

*2 additional pumps were available at this station*

*Note that drainage from this area can also be addressed by DPS 10, DPS 16, and Dwyer DPS via the Morrison Canal.*

**DPS 15:** No. 1 pump gearbox repairs are in progress. RTS Q2 2025.

*2 additional pumps were available at this station*

**DPS 18:** Pump No. 1 out of service as of May 2024. RTS pending further mechanical inspection and repairs.

*1 additional pump is available at this station, and a portable pump was installed at this location as a temporary measure.*

**Underpass Stations:**

At UPS Old Carrollton, which services the Carrollton Ave/Interstate I-10 underpass, one of three pumps at that location are out of service. A temporary pump is deployed at this location.

No issues reported with the remaining underpass pumps or stations during these rain events.

**Power:**

Prior to the event, 58 MW of 25-hz power was available via Turbines 4 and 5, two frequency changers on the Eastbank, one frequency changer on the Westbank, and five EMDs. Frequency Changers 3 and 4 were placed out of service prior to the event due to electrical issues; Frequency Changer 4 was returned to service on December 30. Turbine 6 was also available.

In the process of bringing Turbine 4 online on the evening of December 28, an existing leak in the condensate return line expanded to the point such that the turbine could not be run. As a result, 38.5 MW of power was available for drainage operations, as reflected in the table below. A mitigation strategy has developed for the turbine such that it is available for future events.

As such, a combination of Frequency Changers, EMDs, and Turbine 5 were used for this event. Turbine 6 was also used as a 60-hz backup source due to the concern regarding high winds that could affect Entergy distribution feeders.

The EMDs were used for about 30 minutes, prior to experiencing an overheating alarm. However, Turbine 5 had the capacity to provide the power that was being supplied by the EMDs, such that there was minimal impact to pumping operations. The cause of the alarm has been identified and is being addressed, and the EMDs remain in service for future events.

<b>Unit*</b>	<b>Frequency</b>	<b>Capacity in MW</b>	<b>Available</b>
T4	25 Hz	20 MW (18.5 MW revised capacity)	0 MW

<b>Unit*</b>	<b>Frequency</b>	<b>Capacity in MW</b>	<b>Available</b>
T5	25 Hz	20 MW (16 MW revised capacity)	16 (revised capacity)
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	0 (FC#4 returned to service on 12/30)
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
Plant Frequency Changer via T6	Converts 60 to 25Hz	3.75 MW	0 MW (RTS to be determined)
		Total 25 Hz:	<b>39.5 MW</b>
T6	60 Hz	22 MW	<b>22 MW</b>

\*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.

## 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.