



The Sewerage & Water Board

OF NEW ORLEANS

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February 6, 2024

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.”*

In the afternoon of February 3, 2024 a strong rainstorm moved through Orleans Parish. The initial predictions from the National Weather Service indicated that the storm would bring 1-2” of rain, with locally higher amounts possible, along with strong wind gusts. The status of SWBNO’s pumping and power equipment before and during the events is detailed below.

STORM IMPACTS

This storm resulted in the metro area experiencing a series of high intensity, short duration rain and thunderstorm events that impacted the entire Metro area. The majority of the rainfall was accumulated during the hours of 4pm and 8pm on Saturday evening, with over 5 inches recorded on the Westbank, over 5 inches recorded in the Old City drainage area on the Eastbank, and over 4 inches recorded in New Orleans East.

Notable rain accumulations, intensities, and peak hourly accumulation from 4pm to 8pm on this day are shown below.

Location	Neighborhood	Rain Intensity (in/hr)	Peak Hourly Accumulation (in)	Total Rainfall (in)
Central Control	Hollygrove	5.28	2.12	5.79
WBPC	Algiers	3.60	1.78	5.05
DPS-14	New Orleans East – Lakefront	5.76	2.42	4.91
DPS-01	Broadmoor	3.60	1.99	5.14
DPS-16	New Orleans East – Lakefront	3.72	1.73	4.77
DPS-03	7th Ward	2.64	1.76	4.74
DPS-02	Mid City	3.36	1.76	4.74
DPS-05	Lower 9th Ward	2.76	1.59	4.5
DPS-04	Gentilly	2.64	1.54	4.5
DPS-07	City Park	3.24	1.66	4.23
DPS-06	Lakeview	3.00	1.32	3.96
DPS-12	Lakeview	2.4	1.39	3.78
DPS-10	New Orleans East - Lakefront	2.52	1.30	3.58
DPS-13	Algiers	3.00	1.34	3.53
DPS-11	Lower Coast Algiers	3.72	1.38	3.25
Station-A	Treme	6.00	1.64	3.00
City-wide max		6.0	2.42	5.79
City-wide average		3.58	1.67	4.34

Reports from the Real Time Crime Camera (RTCC) center provided to SWBNO indicated that localized flooding/standing water conditions were observed beginning at 4:45pm, with new reports coming in until 8pm. The majority of reported areas of concern were resolved by 11pm, with the exception of several areas along Downman Road, Poland Ave and North Robertson, and Old Gentilly; resolution timeframes for these locations were not provided by RTCC.

We have been working with, and communicating alongside our partners at DPW and NOHSEP regarding root causes of flooding including monitoring of repeat flood areas, means of communicating problem locations in advance, and real time status and threat assessment updates before, during, and after severe weather events.

The issues with Turbine 4 have been isolated and are most likely related primarily to generator cooler equipment. The repairs should be completed within 7-10 days at which time the turbine should be ready to be placed into service.

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 92 of 99 drainage pumps were considered in service at the outset of the event. However, DPS 6 #4 pump was tested and utilized during the rain event; as such 93 drainage pumps were available.

DPS 3: 25-hz pump out of service due to replacement of bearing housing unit. RTS end of January 2024.

DPS 6: #4 Vertical pump out of service due to electrical issue. RTS February 3, 2024

DPS 10: No. 1 pump (60-hz) out of service. Vendor selected to refurbish pump. RTS Jan 2024.

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

DPS 15: No. 1 pump gearbox repairs are in progress. RTS January 2024.

DPS 17: Pumps A & D (25-hz) out of service due to the issues with electric motor. RTS TBD.

Except as noted in the Power section below, no major pump-related issues (mechanical or electrical) were encountered during the rain event.

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. However, due to the volume of rainfall accumulation, the Carrollton Ave Underpass was submerged and unpassable for several hours until the underpass pumps were able to remove the accumulated water.

Power:

Turbines 4 (25-hz), 5 (25-hz), and 6 (60-hz), along with two frequency changers on the Eastbank, and one on the Westbank, as well as three EMDs were also available at the outset of this event. Due to the limited amount of redundancy in 25-hz power,

plans were made in advance of the rain event to utilize frequency changers for the stations which serve primarily 25-hz pumps.

At approximately 3:30pm, Turbine 4 was taken offline due to a mechanical issue that was identified that afternoon, prior to the rain event. Turbine 5 was brought online in its place and began to carry drainage load around 3:30pm. The EMDs were brought online at 5:30pm. Two of the three available EMDs were able to be utilized, but the third was unable to be brought online to carry a load. As a result, 37 MW of power was available for the event. This reduction in available power primarily impacted DPS 1 and DPS 6, which drains the area Hollygrove and Uptown areas that received the most rainfall during the event.

High winds impacted aerial feeder 2C, which carries power from FC#2 at Carrollton Frequency Changer to DPS 1 and subsequently DPS 2. Pump C at DPS 1 and Pump D at DPS 2 were briefly impacted by periodic feeder outages.

As a result of these conditions and the high rainfall totals over short period of time, water levels in the canals leading to and exiting Stations 1, 2, 3, 6, and 7 remained high for several hours.

Unit*	Frequency	Capacity in MW	Available
T4	25 Hz	20 MW	0 (placed out of service on February 3, 2024)
T5**	25 Hz	20 MW	17.5 MW
Carrollton Frequency Changers 1&2	Converts 60 to 25Hz	8.5 MW	6 (CFC #2 out of service)
Station D Frequency Changers 3&4	Converts 60 to 25Hz	12 MW	6 MW (FC #4 out of service)
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)	5.0 (repairs for EMD #1 and #2 in progress;

Unit*	Frequency	Capacity in MW	Available
			evaluation of EMD #5 underway)
Plant Frequency Changer via T6	Converts 60 to 25Hz	3.75 MW	0 MW (RTS to be determined)
		Total 25 Hz:	37 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.

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.