The Sewerage & Water Board

OF NEW ORLEANS

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www.swbno.org

March 19, 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.*"

Throughout the day on March 17, 2024, a strong thunderstorm system moved through Orleans Parish and Southeastern Louisiana. The initial predictions from the National Weather Service indicated that the storm would bring 2 to 3" of rain in the area, with the potential for strong winds and hail. The status of SWBNO's pumping and power equipment before and during the events is detailed below.

STORM IMPACTS

The majority of the rainfall was accumulated between 9am and 12pm, when over 1.5 inches was recorded in several areas including Central Control, DPS 1, DPS 3, DPS 6, and DPS 20.

The maximum recorded rainfall was at Central Control, with 2.03 total inches, and an average of 1.22 inches recorded across the City. The maximum hourly rainfall recorded was also at Central Control, with 1.50 inches recorded between 10am and 11am. The maximum rainfall intensity was 9 inches/hour at Central Control.

Intensities exceeding 4 in/hr were also recorded at DPS 1 and DPS 6, with an average of 2.95 in/hr recorded at the other locations.

Localized pooling was reported by the Real Time Crime Camera (RTCC) center, starting around 11:30am, with water reported as receded at the majority of locations by noon.

*Note that rainfall data was not available for DPS 15, 16, 17, and 19.

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 93 of 99 drainage pumps were reported in service at the outset of the event.

DPS 3:	**25-hz pump out of service due to replacement of bearing housing unit. RTS April 2024.**
DPS 10:	**No. 1 pump (60-hz) out of service. Vendor selected to refurbish pump. RTS August 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 August 2024.**
DPS 17:	**Pumps A & D (25-hz) out of service due to the issues with electric motor. RTS TBD, pending funding availability.**

At DPS 6, an issue with the vacuum system for the 25-hz pumps was encountered, resulting in elevated canal levels entering the station until 12:15pm, when pumping capacity was sufficient to bring down the canal levels.

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 5 (25-hz), and 6 (60-hz), along with three 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. Additionally, Turbine 6 was brought online in advance to provide 60-hz power to the Carrollton Frequency Changer.

Frequency Changer #3, which was planned to provide power for C pumps at DPS 3 and 7, experienced electrical issues such that C pump at DPS 3 was unable to run from about 10:30 am to 11:30am. However the electrical issue was resolved with no further incidents; other pumps at DPS 7 were used in lieu of C pump, and it was not restarted.

During the event, EMD #4 and #5 were used for pumping as needed. EMD #3 was unable to start due to electrical issues.

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	16 MW (revised capacity while Turbine 4 is out of service)
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 (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)	7.5 (repairs for EMD #1 and #2 in progress)
Plant Frequency Changer via T6	Converts 60 to 25Hz	3.75 MW	0 MW (RTS to be determined)
		Total 25 Hz:	**40.5 MW**

Unit*	Frequency	Capacity in MW	Available
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.