The Sewerage & Water Board

OF NEW ORLEANS

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February 10, 2023

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, February 8, 2023, the National Weather Service issued a series of flash flood warnings associated with a strong storm system that moved through Orleans Parish between approximately 9 p.m. and 12 a.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 total rainfall was 2.47" at Drainage Pumping Station 19 in the upper Ninth Ward. The Hollygrove and Lakeview neighborhoods also had rainfall totals of 2.23" and 1.92", respectively. The highest rainfall intensity reached 7.32 inches per hour at Drainage Pumping Station 19. The Lakeview and New Orleans East neighborhoods also experienced high rainfall intensities of at least 7 inches per hour.

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

PUMPING AND POWER

During the high wind event as the storm passed through the metro area, one of the aerial electrical feeders adjacent to a drainage pumping station began arcing. SWBNO operators switched over to a redundant underground electrical feeder to continue supplying power to the station.

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 Q2 2023**
DPS 10:	**No. 1 pump out of service; repair evaluation in progress**
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; return to service date Q1 2023**

During the event, D Pump at DPS 12 experienced electrical issues with auxiliary equipment, such that the pump was stopped in order to avoid damage. The necessary repairs needed to the resistor grid were identified the following day; repairs were made and the pump was returned to service on February 10, 2023. No drainage issues were reported in the vicinity of DPS 12 during or following the event.

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 are offline while repairs to radiator fan motors are being completed. 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	12 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)	0.0 (Radiator Fan Motor replacements in progress)
T6 (via Plant Frequency Changer)	Converts 60 to 25Hz	3.75 MW	3.75
		Total 25 Hz:	**62.25 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.