

Middlesex County Utilities Authority

Hurricane Sandy Update

March 27, 2013

FEMA, USACE, USEPA and NJDEP

Federal and State agencies have visited the site and are fully briefed on the restoration efforts being implemented by the MCUA. Both agencies are constantly monitoring the situation.

Service Interruptions

None reported

Central Wastewater Treatment Plant

The Central Treatment Plant is fully operational and is handling all wastewater and trucked waste entering the plant in Sayreville. Currently, the Central Treatment Plant is being powered by the Landfill Gas to Energy Facility and local electric utility. Analysis of December 2012 operating data shows Plant performance was impacted by the unscreened sewage conveyed through the Temporary Bypass Pumping System at the Sayreville Pumping Station. Excessive solids reduced the efficiency of the Final Settling Tanks for several days. February 2013 plant performance is compliant with permit discharge requirements.

The average rate of wastewater flow entering the Central Treatment Plant:
93 million gallons a day

South Amboy Pump Station

Operational

Repairs to damaged equipment are being performed by MCUA, which are ongoing.

The estimated average rate of wastewater flow conveyed to the Central Treatment Plant:
1-2 million gallons a day

Edison Pump Station

Operational

Five Main Pumps capable of conveying 85 MGD of wastewater to the Central Treatment Plant are in operation.

Calibration of pressure transducers and pressure transmitters are complete; final startup testing and commissioning for Main Control Panel completed; Operator training is scheduled for the week of April 1st.

On-site emergency generators are functional in the event of loss of electric utility power; however, generator automatic control issues remain to be resolved.

Emergency work nearing completion; contractors in the process of demobilization.

Currently, the Main Pumps are able to convey 85 MGD which exceeds the average daily amount of wastewater that enters the station. Bypass pumping system capable of handling 20 -24 mgd is in standby mode.

The estimated average rate of wastewater flow conveyed to the Central Treatment Plant:

16 million gallons a day

Sayreville Pump Station

Original Sayreville Pump Station

Main Pump Nos. 2E and 3E are operational [rated capacities of each pump 33MGD @ 102 feet Total Head], continuing the evaluation of pump hydraulic and mechanical performance; tests performed indicate Pumps 2E and 3E are capable of conveying approximately 80 MGD.

Continuing hydraulic evaluations of pump system conveyance capacity; draft report on the findings has been completed and is under review, further evaluations of the Temporary Bypass Systems conveyance capacities and additional surge analyses on the Original Sayreville Force Main and Sayreville Relief Force Main are ongoing.

Controls to permit manual back flushing of Main Pump Nos. 2E and 3E by MCUA Operators remain operable; back flushing of pumps was not performed today.

Delivered and received influent chamber slide gate

Bar Screen No. 1 ready for operation upon introduction of flow through the OSPS influent channel.

Sayreville Relief Pump Station

Main Pump Nos. 2R, 3R, and 4R are operational [rated capacity of 3R &4R: 50 MGD @ 89 feet Total Head; rated capacity of 2R: 40 MGD @ 89 feet Total Head]; recorded flow from Main Pump Nos. 3R and 4R has, at times, exceeded 60 MGD.

Controls to permit manual back flushing of Main Pump Nos. 2R, 3R and 4R by MCUA Operators are operable; back flushing SRPS pumps was not performed today.

Main Pump No. 4R normal operation remains a concern; pump discharge cone valve and motor bearing temperatures issues exist and amperage usage continues to be elevated. To address the amperage usage, an additional set of replacement diodes have been ordered for the pump motor rotating diode assembly. Main Pump No. 4R operational if needed.

During testing of Main Pump No. 5R, an electrical issue regarding the motor was identified and it was determined the motor needs to be removed and refurbished offsite. Activities to disconnect motor electrical cables and the motor from its grout base on the upper level floor are ongoing. The motor is currently scheduled to be sent back to Scheinert & Sons repair shop on April 1.

Due to the electrical issue concerning the motor for Main Pump 5R, the following items were completed today to prepare Main Pump No 6R for operation:

- Completed moving the actuator from the suction valve on Main Pump No. 5R to the suction valve on Main Pump No. 6R and opened the valve to 90%.
- Completed the installation of seal water modifications.
- Completed installation of cone valve differential pressure switch.
- Completed I/O check out and timing of cone valve operation
- Scheinert & Son technician is scheduled for tomorrow morning to inspect and electrically check the motor prior to start up.
- Final VFD commissioning (bump motor for rotation, check motor ramp rates) scheduled for tomorrow.
- Start up scheduled for tomorrow after successful motor checkout and VFD commissioning.

Successfully completed testing the relay in the 5kV switchgear for OCB Transformer 2; completed wiring modifications on main trip interlocks A and B for Genset in the 5 KV switchgear; completed installing auxiliary power (120 volts) panels for Pumps 3R and 4R.

On-site emergency generator is functional in the event of loss of the two electric utility power feeds into the pump station; transfer of load to the generator must be performed manually. The generator is sized to operate two Main Pumps along with ancillary pump station equipment in either the SRPS or OSPS. Emergency generator was not operated today.

Operating Bar Screen Nos. 1, 2, 3 and 4, as needed, and the Interconnection channel between SRPS Wet Well and OSPS Wet Well.

Temporary Bypass Pumping System

Operational

System operation has been on an intermittent basis due to Main Pump Nos. 2E, 3E, 3R and 4R capable of conveying all of the dry weather flow and a portion of the maximum wet weather flow to the Central Treatment Plant. Temporary Bypass Pumps were not operated for conveyance of sewage flow and will remain on stand-by.

Performed maintenance as needed; recirculation system operational to prevent freezing.

Temporary Bypass Pumping System at the Weber Ave. Meter Chamber was not operated and will remain on standby. This System serves to isolate the MCUA Interceptor pipeline sewage flow from the local sanitary sewer collection system to mitigate potential impacts during wet weather events.

The estimated average rate of wastewater flow conveyed by the Main Pumps and/or Temporary Bypass Pumping System to the Central Treatment Plant:

74 million gallons a day

Temporary Wet Weather Overflow Facilities

WW-1 Facility at SPS site completed with floatables control system
WW-2 Facility at MCLF completed with floatables control system
WW-3 Facility at MCLF completed with floatables control system
WW-4 Facility at MCLF:

- Pump WW 4-1 completed with floatables control system
- Pump WW 4-2 completed with floatables control system
- Pump WW 4-3 completed with floatables control system

All six Wet Weather Overflow Pumps are fully operational and currently on stand-by; freeze protection is in place.

Industrial Users

Industrial users are being notified that Sayreville Pump Station and Edison Pump Station currently can convey average daily flows to the Central Treatment Plant and may resume discharging to their respective wastewater collection systems. Also, MCUA maintained the reduced trucked in waste rate until January 4, 2013. As of January 5, 2013 the Septage Rate is \$48.00/1000 gallons and the Industrial Rate is \$72.00/1000 gallons.

Uncontrolled Overflows

None as of January 26, 2013

Controlled Overflows

None as of January 17, 2013

Middlesex County Landfill Hours

Middlesex County Landfill is fully operational and open to accept solid waste for disposal. Below is the operating schedule for the Landfill in East Brunswick until further notice.

Monday thru Friday	7:00am – 3:00pm
Saturday	7:00am - 12:00 noon
Sunday	Closed

Contact Information: Tony Cicatiello, 908.568.3280