

# ***Middlesex County Utilities Authority***

## ***Hurricane Sandy Update***

***March 21, 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:  
116 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. Main Pump No. 5 temporarily out of service for maintenance.

Calibration of pressure transducers and pressure transmitters are complete; final startup testing, commissioning and training for Main Control Panel initiated last week and continues to be in progress.

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:

19 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 MUA Operators remain operable; back flushing of pumps was not performed today.

Bar Screen No. 1 ready for operation upon introduction of flow through the OSPS influent channel. Initiated work on installing dowels, rebar and formwork for grouting in place Bar Screens No 2 and 3 at the intermediate and upper levels.

#### **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 MUA 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.

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 in service today to operate the pump station while maintenance was performed on outdoor electrical gear and cable connections completed for interior electrical equipment.

Completed finishing grout around the motor base and installation of motor guards for Main Pump No. 6R; completed installation of motor guards on Main Pump Motor No. 5R.

Completed Work on Main Outdoor Substation:

- JCP&L successfully cut power to M39 and Q69 distribution feeders.
- JCP&L currently delayed in restoring power; expected return after 6 PM.
- Completed maintenance on the 34.5 KV cutout switches; additional work will be required
- Completed inspection of 34.5KV to 5KV transformer secondaries (5KV terminations and wiring leaving the transformer to SPS)
- Completed measurements at 34.5KV to 5KV transformer secondaries to design cable supports required

Completed work in the Outdoor Switchgear:

- Replaced OCB ammeter located in the 5KV switchgear
- Successfully tested six (6) ammeters and two (2) volt meters for both Oil Circuit Breakers (OCBs) in the 5KV switchgear.
- Completed installation of blank plates for remaining openings in the 5 KV switchgear cubicles.
- Continuing inspection and testing Bus B Main Feeder breaker on the 5KV Switchgear

Completed installing Automatic Transfer Switch (ATS) during power shutdown for the 480V Motor Control Center; completed functional testing of ATS with ASCO Representative; completed instruction of MCUA personnel on ATS operation; and continued megger testing, amp testing, verifying overloads, and terminations for six (6) existing roof exhaust fans

Operating Bar Screen Nos. 1, 2 and 4 and 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: 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:

94 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  
Saturday  
Sunday

7:00am – 3:00pm  
7:00am - 12:00 noon  
Closed

Contact Information: Tony Cicatiello, 908.568.3280