

## ***Middlesex County Utilities Authority***

### ***Hurricane Sandy Update***

***April 8 to 12, 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. NJDEP Commissioner issued order, dated April 11, reopening shellfishing in all waters in the State of New Jersey effective April 15.

#### **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 week's estimated daily average rate of wastewater flow and peak daily flow entering the Central Treatment Plant:

92 million gallons per day average  
109 million gallons peak day (April 12)

#### **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 pump pressure differential switches is ongoing; installation of tunnel shaft supply/ exhaust fans is ongoing.

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 week's estimated daily average rate of wastewater flow and peak daily flow conveyed to the Central Treatment Plant:

16 million gallons per day average  
21 million gallons peak day (April 12)

### **Sayreville Pump Station**

Six Main Pumps estimated capability of conveying 300 MGD of wastewater to the Central Treatment Plant are in operation.

#### **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 this week.

Completed the installation and alignment of drive shafts for Main Pump No. 4E; adjustments ongoing to the slide gate in the Influent channel.

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, 4R and 6R are operational [rated capacity of 3R & 4R: 50 MGD @ 89 feet Total Head; rated capacity of 2R & 6R: 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, 4R and 6R by MCUA Operators are operable; back flushing SRPS pumps was not performed this week.

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

Additional work is required for the 34.5KV cutout switches on both the M39 and Q69 Main JCP&L Utility Feeders; arrangements are underway for the replacement of these switches. The MCUA Board of Commissioners approved an emergency authorization to complete this work.

Main Pump No. 4R normal operation remains a concern; pump discharge cone valve and motor bearing temperature 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. The replacement diodes have been received and coordination for installation on the pump motor is underway. 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. The motor was removed from the site for refurbishment at the Scheinert & Sons motor repair shop.

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.

Continued work for the activation of Main Pump No. 1R, completed the installation of the rotating assembly, completed the installation of the discharge valve actuator, completed the modification of the seal water and flushing water piping, and installed pump vibration sensor and speed transmitter.

Completed modifications to the of seal water and flushing water piping for Main Pump No. 5R; continuing installation of the intermediate level emergency lighting

### **Temporary Bypass Pumping System**

Operational

System operation has been on an intermittent basis due to Main Pump Nos. 2E, 3E, 2R, 3R, 4R and 6R capable of conveying all of the dry weather flow and 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. Pump maintenance performed as needed.

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 week's estimated daily average rate of wastewater flow and peak daily flow conveyed by the Main Pumps and/or Temporary Bypass Pumping System to the Central Treatment Plant:

74 million gallons per day average  
84 million gallons peak day (April 12)

### **Temporary Wet Weather Overflow Facilities**

WW-1 Facility at SPS site: piping dismantled and pump is inoperable; WW-A, B and C Pumps at the SPS and associated piping has been disconnected and stored at the site.

WW-2 Facility at MCLF: piping dismantled and pump removed from site.

WW-3 Facility at MCLF: piping dismantled and pump removed from site.

WW-4 Facility at MCLF:

- Pump WW 4-1: piping dismantled and pump removed from site.
- Pump WW 4-2: piping dismantled and pump removed from site.
- Pump WW 4-3: piping dismantled and pump removed from site.

All pumps have been removed from the MCLF site; removal of fill and stone for equipment pads and removal of piping is ongoing.

### **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**

### **Controlled Overflows**

None as of January 26, 2013

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

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