

# Middlesex County Utilities Authority

## Hurricane Sandy Update

November 25, 2012

**UPDATE:** Technical Assistance was requested from the USEPA to accelerate clean up of debris and sediment deposited and discovered during the dewatering operation of the Original Sayreville Pump Station (OSPS) and Sayreville Relief Pump Station (SRPS). This assistance will improve the work to allow for the acceleration of the cleanup and activation of one 40 mgd in the OSPS. The MCUA received authorization from the NJDEP to allow a USEPA contractor to proceed with this work. The USEPA contractor completed work on the OSPS station and cleaning of the SRPS continued today. An amended Technical Assistance request was submitted to Middlesex County Office of Emergency Management to increase the time and funding to complete this work and is currently being processed the appropriate regulatory agencies.

Installation of the four temporary bypass systems is completed. With all four temporary bypass pumping systems functioning, pumping capacity is presently estimated at 65-74 mgd. The four bypass pumping systems are monitored on a 24-hour basis and are continually adjusted to achieve maximum pumping capacity of 82 mgd. The average daily flow entering the Sayreville Pump Station is between 70-75 mgd including normal peak flows.

With the bypass pumping systems in place, cleanup of the Sayreville Pump Station grounds is ongoing to allow for site activities to proceed in an orderly and efficient manner for the repairs to the Original Sayreville Pump Station (OSPS) and Sayreville Relief Pump Station (SRPS).

At the Edison Pump Station, two of the main pumps are available for service after repairs have been completed. The bypass system which can handle 20-24 million gallons per day (mgd) also remains in service to handle low flows. Operation of main pumps and the temporary bypass pumping system provides a 70 MGD pumping capacity of the Pump Station, which is well in excess of the average daily wastewater flow that enters the station and conveyed to the central treatment plant. This station is currently manned 24 hours a day by MCUA personnel.

MCUA met with representatives of the United States Army Corps of Engineers (USACE) from the Philadelphia District. MCUA executives and its consulting engineer discussed options available to the Authority in managing storm water flows that exceed the pump stations average daily flows. The USACE agreed to conduct an assessment, scope of work and cost estimate to construct Temporary Wet Weather Overflow Facilities. A kick-off meeting was held on November 10, 2012 for the exchange of information between representatives of the USACE, USEPA, NJDEP, MCUA and MCUA engineering consultants. The USACE toured the Sayreville Pump Station and potential sites for the installation temporary wet weather overflow pumps. The USACE submitted its assessment report to the MCUA which was

reviewed by the MCUA and its engineering consultant. The MCUA and its engineering consultant are currently evaluating proposals received for the installation of a temporary wet weather overflow facility based upon the alternatives presented in the USACE assessment report. The MCUA meet with the selected contractors to discuss construction of the temporary wet weather facility and is currently finalizing costs and a work schedule. On November 20, 2012, representatives of the USEPA and NJDEP toured the Sayreville Pump Station and discussed the implementation of the Temporary Wet Weather Overflow Facilities Plan and alternatives and possible alternatives to the Plan developed by the USACE. USEPA, NJDEP and MCUA representatives, together, are to continue discussing the implementation of the Temporary Wet Weather Overflow Facility and projected construction schedule. USEPA and MCUA representatives met and toured the Landfill site to review potential pump system discharge locations. MCUA engineering consultant is preparing a plan to be reviewed by all entities.

A meeting was held with FEMA, USACE and MCUA representatives to discuss funding assistance for the MCUA from FEMA and the State on the emergency, intermediate and permanent work for OSPS and SRPS. In addition the meeting also served as the kick-off meeting for MCUA's Request for Public Assistance from FEMA. Topics discussed included the construction of the Temporary Wet Weather Overflow Facilities and emergency, intermediate and long term repairs to the pump stations.

The Middlesex County Landfill will continue operating with extended hours during the week, however, it will be closed on Sunday November 25, 2012. The schedule is set below. There has been an increase in Landfill activity with no significant waiting time for tipping loads. Normal operation sees about 200 trucks a day, but that has gone up to over 300 trucks per day during this fallout from Hurricane Sandy. The MCUA Solid Waste Division representatives attended a MCOEM Debris Management meeting today and informed County and Local officials of the landfill extended hours of operation.

MCUA was informed of several water recreation activities occurring in the Washington Canal and Raritan River. The MCUA immediately upon this notification contacted Sayreville Office of Emergency Management/Sayreville Police Department to request their assistance in suspending these activities and curtailing access due to the impacts sustained by the waterways as an aftermath from Hurricane Sandy. The MCUA communicated with the Middlesex County of Emergency Management to place additional signage notifying the public to prohibit any water activities until further notice.

Service interruptions continue to be minimal for the residents that are customers of the MCUA Participants and a majority of residents will see no impact with their wastewater service.

### **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.

### **South Amboy Pump Station**

Fully operational; pumping waste to the central facility

### **Edison Pump Station**

Inoperable, flooded with ocean water and silt

Two Main Pumps capable of conveying 64 mgd to the Central Treatment Plant and remains in operation

Bypass pumping system capable of handling 20 -24 mgd will be placed in standby mode.

The Main Pumps and the bypass pumping system handle 70 million gallons per day which exceeds the average daily amount of wastewater that enters the station

Electrical and mechanical equipment in the station continues to be repaired

Evaluation for the replacement of the pump station HVAC system has been initiated and the existing damaged HVAC has been removed

The two on-site electrical generators have been inspected by the manufacture for reactivation. Auxiliary electrical components and controls are currently preventing the generators from being restarted at this time. Some of the generators components and controls were flooded during storm event.

Due to the flooding of the station, the service life of all equipment in the station has been compromised.

### **Sayreville Pump Station**

Inoperable, flooded with ocean water and silt

First bypass pumps became operational on Sunday, Nov. 4, at 1:30 am and continue to operate conveying between 20-24 mgd of wastewater to the central treatment plant.

The second and third bypass pumping system became operational on November 11, 2012 and continues to operate.

The fourth bypass pumping system was placed into service on November 15 at 6:22 pm.

All four bypass pumping systems are up and running and are capable of conveying an estimated at 65-74 mgd the current average daily flow that enters the station to the central treatment plant.

It will take several weeks to dry out and repair the electrical and mechanical equipment in both stations before they can be placed back into usable condition with at least one pump.

Six of the ten pump motors have been removed and all six have been shipped off site for reconditioning. Three of four constant speed pump rotating assemblies have been shipped off site for reconditioning.

Due to the flooding of the station, the service life of all equipment in the station has been compromise

**Industrial Users**

Industrial users are being asked to minimize their process wastewater flow to their respective wastewater collection systems, which then flows to the MCUA. Also, MCUA has reduced its trucked in waste rate to accommodate companies which elect to have their wastewater processed at the central treatment plant.

**Uncontrolled/Controlled Overflows**

The storm surge that impacted the Raritan River flooded three of the MCUA Pump Stations located on the banks of the Raritan River and Bay. The South Amboy Pump Station the smallest of the three was placed back into service. However, the Sayreville Pump Station and Edison Pump Station were rendered inoperable. The loss of these two pumping stations caused uncontrolled overflows from several locations along the pipe lines entering the pump stations. Also, at the Sayreville Pump Station the controlled bypass to the Raritan River had to be open to reduce further flooding of the pump station. As November 14, 2012, the MCUA has not experienced any uncontrolled overflows from its pipelines, and as November 22, 2012 at 3:00 am, the MCUA stopped its last control discharge to the Raritan River from its Sayreville Pump Station. Unfortunately today at the Sayreville Pump Station, from 12:20am to 3:30am a controlled bypass to the Raritan River occurred due to the diminished pumping capacity of the bypass pumping system caused by one of the nine bypass pumps failing. The bypass pump was replaced and operational by 10:55am today.

**FEMA, USACE, USEPA and NJDEP**

Federal and State agencies have visited the site and are fully briefed on the bypass operations of the MCUA. Both agencies are constantly monitoring the situation and have been providing whatever resources the MCUA needs.

**Middlesex County Landfill Extending Hours**

Middlesex County Landfill is fully operational and open to accept solid waste for disposal. Electric utility power was restored to the landfill on Nov. 6. The Landfill will continue to extend operating hours during the week. Below is the schedule for the Landfill in East Brunswick.

**Sunday - November 25**

**CLOSED**

**Monday - November 26  
through Friday - November 30**

**7am - 4:30 pm**

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