



MCUA Looks Back at 2014

The past year has been a busy one for the Middlesex County Utilities Authority, with several projects completed or underway that will allow us to better serve the community and more efficiently process solid waste and wastewater. Below, we look back on several important accomplishments. We look forward to a productive 2015 and to further protecting central New Jersey's environmental resources.

February

At the beginning of 2014, the Federal Emergency Management Agency (FEMA) deemed the MCUA eligible for a \$10.8 million grant, which will cover approximately 90 percent of the cost of repairs to the Sayreville Pump Station. The Station, as well as facilities in South Amboy and Edison, experienced major damage as a result of Hurricane Sandy. Specific work includes repairing all large pumps; replacing small pumps; cleaning, lubricating and repairing all switchgear; removing and replacing actuators; and completing the replacement of all wiring and motor control centers at the facility.

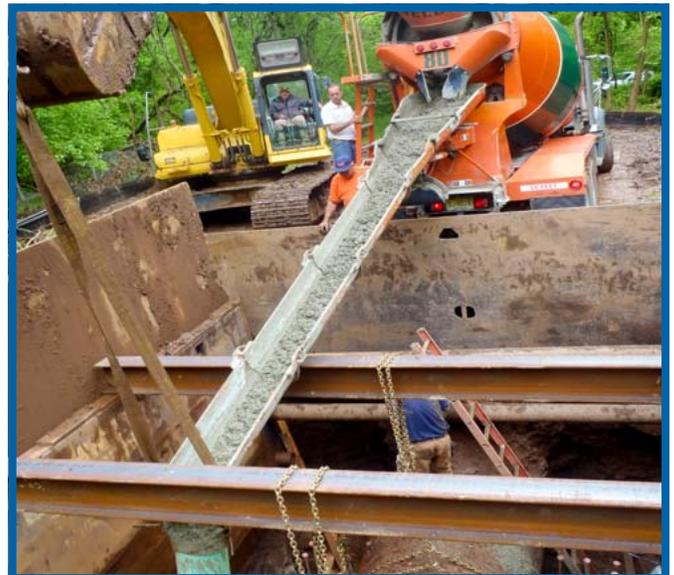
March

As part of a plan to expand the Gas to Energy technology, a pipeline was installed to transport methane from Cell 6 to a new 1.6 megawatt Gas to Energy engine (see picture at right). The project should save the Authority between \$300,000 and \$400,000 annually in power purchasing costs.



April

Proving that most anything can be recycled, the MCUA initiated the Workforce Bulky Waste Recycling Operation, which allows for a limited stockpile of wood to be set aside, ground down, and used as woodchips. The MCUA uses the woodchips for road cover and other site activities.



June

Major rehabilitation of the Main Trunk Sewer took place this past summer, including the replacement of approximately 25,000 feet of pipeline (see picture at right). The sewer line has transported waste from Bound Brook to the Sayreville Pump Station (more than 11 miles) uninterrupted since 1955. A bypass pumping system maintained flows during the rehabilitation.

July

One of the five scales that weigh trucks as they enter the Landfill facility was replaced, in keeping with its ten to twelve year life cycle (see picture at right). Each of the scales is calibrated twice per year and inspected by the New Jersey Office of Weights & Measures.



September

Construction of a new Stormwater Retention Pond at the Landfill continued throughout the summer. The Pond,

which constitutes a major upgrade to the stormwater system, will collect stormwater and discharge it to the Wastewater Treatment Plant for processing, enabling the MCUA to limit the potential impacts of major rain events (see picture at left).



October

A new backup generator was installed at the South Amboy Pump Station, as part of repairs to all three pumping stations post-Sandy. The generator, which is fully operational, will provide power in the event of outages caused by natural disasters or other controlled or unplanned circumstances.

November

The MCUA engaged an engineering firm to design several permanent improvements for the Edison Pump Station, which serves roughly 150,000 residential users. The improvements include new electrical equipment and a 16-foot wall which, according to FEMA guidelines, is sufficient to protect the facility from 500 year floods.

Solid Waste Division

November 2014 Tonnage Figures

	Monthly Tons	Cumulative Tons
2014	41,575	490,330
2013	39,330	499,425

An average of 231 trucks hauled a total of 1,808 tons of waste to the landfill facility each day.

Wastewater Division

November 2014 Statistics

- Average Influent flow – 97.42 mgd
- Average Effluent TSS – 19 mg/l
- Average Effluent BOD – 12 mg/l
- Biosolids production – 12,770 wet tons, a 1.9% increase over the five-year average. The entire amount was processed through the dryers. During the month of November the one millionth wet ton of biosolids was processed through the dryer. The first wet tons went through in March 2006, and the facility achieved full time operation in November 2008.

*Rainfall for the month was 3.36 inches as measured at the plant.