



## WASTEWATER DIVISION

# Project Update: Wastewater Reuse Pump Station for CPV Power Plant



In adding another beneficial use for the effluent water treated at the Wastewater Treatment Plant, the Middlesex County Utilities Authority (MCUA) announced in late 2013 that it would move forward with construction of a Wastewater Reuse Pump Station so that power developer Competitive Power Ventures (CPV) could use the effluent water to cool the Woodbridge Energy Center (WEC).

The MCUA can now announce that construction of the pump station was finalized according to schedule in late 2014 and testing



is underway. The entire cost of the project – more than \$5 million – will be reimbursed to the MCUA by CPV.

As part of the new agreement, the MCUA will provide approximately 7 million gallons of cooling effluent water to the WEC, which

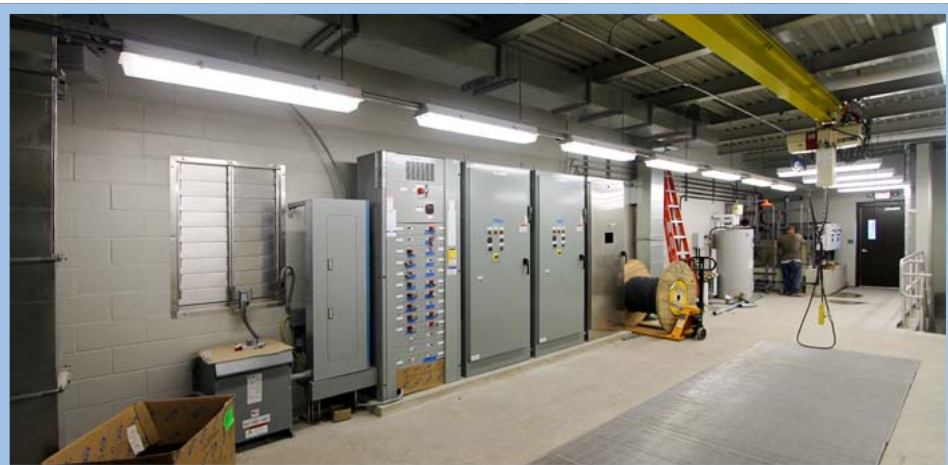
will generate 700 megawatts of electricity, enough to power more than a half of a million homes.

Most of the 7 million gallons will evaporate as part of the cooling process, but approximately 2 million gallons will return to the MCUA for further processing.

The WEC, which is a natural gas electric generating station, will sit on 25 to 40 acres in Woodbridge, New Jersey. The site was once a chemical plant and is today a Brownfield Redevelopment Area. By remediating and reusing the blighted area, CPV is

contributing to a cleaner, more environmentally-sound New Jersey. Their plans for the site also include public recreational access to the Raritan River.

“This type of recycling of a byproduct from our treatment process brings better efficiency and more savings,” explained MCUA Executive Director Richard Fita-mant. “It is why we continue to find new ways to reuse our outputs, while driving toward even greater environmental protection. This project is an extension of that commitment.”



## Wastewater Division

### December 2014 Statistics

- Average Influent flow – 117.96 mgd
- Average Effluent TSS – 11 mg/l
- Average Effluent BOD – 18 mg/l  
For the year, the average flow was 106.57 mgd and we recorded a total rainfall of 37.04 inches. This is the third year in a row that total rainfall has been less than average for New Jersey. The average effluent BOD for the year was 15 mg/l and the yearly average effluent TSS was 22 mg/l. This is the twentieth consecutive year in which both yearly average results have been below the permit levels and the thirtieth consecutive year in which the yearly BOD average has been below 30 mg/l. Average monthly flows for the year ranged from 135.78 mgd in February to 83.11 mgd in September.
- Biosolids production – 14,006 wet tons, a 3.5% increase over the five-year average. The entire amount was processed through the dryers.  
For the year, we produced 165,915 wet tons, an 11 % decrease over the 10-year average. This is the third lowest amount of sludge treated by the plant since the end of ocean disposal in 1991. Of this total 145,211 tons (88 %) were processed through the dryers, 20,704 tons (12%) were lime stabilized and shipped out of state.

*\*Rainfall for the month was 3.61 inches as measured at the plant.*

## Solid Waste Division

### December 2014 Tonnage Figures

	Monthly Tons	Cumulative Tons
2014	51,003	541,333
2013	42,608	542,033

An average of 242 trucks hauled a total of 1,962 tons of waste to the landfill facility each day.