



New Fiber Connects Edison Pump Station to MCUA's Central Treatment Plant

As part of MCUA's ongoing rehabilitation and upgrading of the Edison Pump Station, the fiber cable running through the pipe gallery under the Raritan River has been replaced by Walsh Construction II, LLC the project contractor. This new cable increases the amount of fiber strands which communicate between the Edison Pump Station and the Central Treatment Plant from 6 to 24 strands. This fiber carries signals which indicate pump status, well levels, and potential alarms, among other types of data. By quadrupling the amount of fiber between the station and plant, MCUA will be able to increase the amount of data it collects from the station, leading to better operating practices for the station and more efficient wastewater conveyance. In addition, this new fiber allows the signal from the new cameras located on the new floodwall of the Edison Pump Station to the Central Treatment Plant. These cameras will livestream the conditions around the station during storm events, allowing the MCUA to more easily and accurately assess the conditions of the station and the Raritan River that it borders.



New D6T Dozer to be used at Landfill

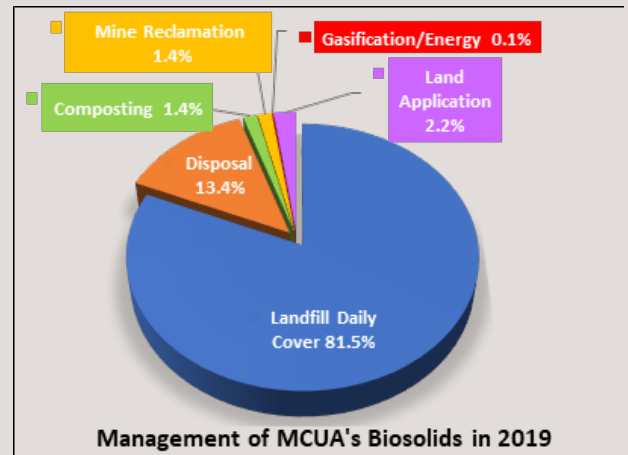
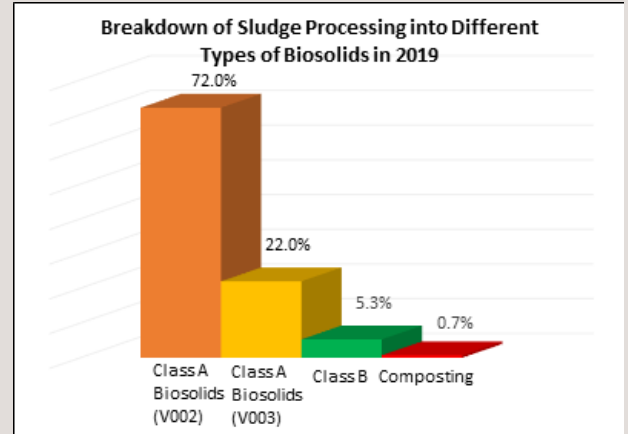
The Middlesex County Landfill has put into service a new D6T Waste Handling Dozer. This machine weighs more than 56,000 pounds and has 245 horsepower. The run time for this machine is approximately 2,000 hours per year. Landfill staff will use the dozer for daily cover operations, road maintenance and garbage placement. The D6T dozer can move 12.33 cubic yards of garbage/dirt in one pass.



Sludge Processing and Biosolids Management in 2019

Wastewater treatment at the Central Treatment Plant generated 156,763 wet tons of sludge in 2019. In addition to that, the Plant accepted 9,386 wet tons of customer sludge from 5 Publicly Owned Treatment Works (POTW). The sludge was processed into four streams of biosolids as shown in the adjacent charts. The DuopHase sludge stabilization facility produced Class A Exceptional Quality (EQ) biosolids using two approved processes or Alternatives – Alkaline Stabilization (V002) and Thermal Treatment (V003). The combined MCUA-produced and customer sludge was processed into Class A using Alkaline Stabilization (72%) and 22% was processed into Class A using Thermal Treatment process. During two scheduled DuopHase maintenance shutdowns, 5.3% of the sludge was processed into Class B biosolids and 0.7% directed to a co-composting facility.

All the biosolids were managed under the Authority’s Land Based Sludge Management (LBSM) program by a combination of beneficial uses and disposal. Among the beneficial uses, 1.4% was used in mine reclamation, 0.1% in gasification/energy production, 81.5% as daily cover at the Landfill, 1.4% as composted material, 2.2% in other beneficial uses such as application to agricultural lands, while 13.4% of mainly Class B produced during the shutdown were sent to the Landfill.



Wastewater Division

January 2020 Statistics

- Average Influent flow – 102.84 mgd
- Average Effluent TSS –9 mg/l
- Average Effluent BOD – 11 mg/l
- Biosolids production – 15,881.2 wet tons of dewatered filter cake. The entire amount was processed through the dryers, resulting in 6,480 wet tons of biosolids.

*Rainfall for the month was 1.94 inches as measured at the treatment plant.

Solid Waste Division

January 2020 Tonnage Figures

	Monthly Tons	Cumulative Tons
2020	41,413	41,413
2019	39,599	39,599

An average of 263 trucks hauled an average of 1,657 tons of waste to the Landfill facility each day.



TOILET PAPER
2 to 4 WEEKS



CARDBOARD
2 MONTHS



PLASTIC BAGS
20 YEARS



COFFEE CUP
50 YEARS

EARTHBITS
HOW LONG DOES OUR WASTE STAY ON EARTH?



DISPOSABLE NAPPIES
500 YEARS



PLASTIC TOOTHBRUSH
500 YEARS



PLASTIC BOTTLE
500 YEARS



PLASTIC STRAW
200 YEARS



COFFEE PODS
500 YEARS