



## Grit Chamber Maintenance

The MCUA's Central Treatment Plant Headworks includes four aerated grit chambers. Plant influent flows from the influent channel to the aerated grit chambers. Flow velocities are slowed by aeration along one side of the tank. Coarse grit settles in the tank and the lighter putrescible material remains suspended, overflowing the chamber effluent weirs. The grit chambers require cleaning several times a year. Greg Soroka from the Operations Department is shown below operating the overhead gantry crane used to pile and remove grit from the chamber. The grit is later hauled to the Middlesex County Landfill. A chamber clean out removes approximately 40 - 100 tons of material per tank.



Greg Soroka Removing Grit with Gantry Crane



Grit Piled for Removal

# Process Air Piping Pilot Project

The current aeration system for various channels at the Central Treatment Plant was constructed in the early 1970s. The aeration system consists of blowers, air distribution piping and diffuser assemblies located along the channels. Its function is to keep wastewater solids in suspension and to oxygenate the wastewater to reduce odorous emissions. Portions of the submerged coarse-air diffuser assemblies have corroded, developed air leaks, and do not provide the desired aeration and mixing. The original Swingfuser assemblies are in need of replacement. However, the existing assemblies are no longer available. MCUA Maintenance personnel have been hard at work fabricating a prototype to assist with the design and replacement of the corroded diffusers.



Hybrid Swingfuser Prototype

## Wastewater Division

### May 2020 Statistics

- Average Influent flow – 94.14 mgd
- Average Effluent TSS – 10 mg/l
- Average Effluent BOD – 15 mg/l
- Biosolids production – 16,955 wet tons of dewatered filter cake. The entire amount was processed through the dryers, resulting in 7,215 wet tons of biosolids.

*\*Rainfall for the month was 1.63 inches as measured at the treatment plant.*

## Solid Waste Division

### May 2020

### Tonnage Figures

	Monthly Tons	Cumulative Tons
2020	43,640	197,996
2019	51,070	211,095

**An average of 247 trucks hauled an average of 1,746 tons of waste to the Landfill facility each day.**

# Ed Wallace Retires from MCUA after 13 Years of Service

Edward Wallace retired from the Solid Waste Division May 1st of this year. Ed started as an Operator at the Wastewater Treatment Facility in June 2007. Ed then transferred to the Solid Waste Division as a Scale Operator in 2015. The MCUA Board of Commissioners and staff thank and congratulate Ed.



From Left to Right: Brian Murray SWD Superintendent, Edward Wallace, Joseph Cryan, Executive Director.