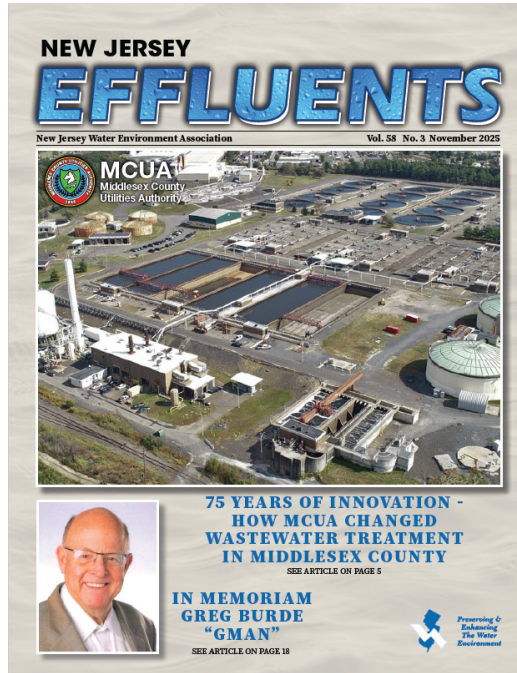




WASTEWATER DIVISION

How MCUA Changed Wastewater Treatment in Middlesex County



Wastewater Division January 2026 Statistics

- Average Influent flow- 85.88 mgd
- Average Effluent TSS – 14 mg/l
- Average Effluent BOD – 12 mg/l
- Biosolids production –During January, MCUA produced 11,725 wet tons of filter cake, all of which was processed through the dryers resulting in 2,904 wet tons of class A product.

*Rainfall for the month was 2.20 inches as measured at the Treatment Plant.

The Middlesex County Utilities Authority (MCUA) has been a cornerstone of environmental protection in central New Jersey for 75 years, earning recognition in **New Jersey Effluents** magazine for its lasting impact on Wastewater Treatment. Located on 160 acres in Sayreville, the MCUA operates one of the largest Wastewater Treatment facilities in the state, serving more than 943,000 residents across three counties. Operating around the clock, the facility treats residential, commercial, and industrial Wastewater before safely returning treated effluent to the Raritan Bay and Raritan River, playing a critical role in regional water quality and public health.

MCUA's origins trace back to the early 20th century, when rapid population growth overwhelmed local waterways and led to severe pollution in the South and Raritan Rivers. In response, the Authority was created in 1950 to develop a regional solution. By 1958, a centralized treatment system was operational in Sayreville, marking a major shift away from smaller, overburdened local plants. This regional approach laid the foundation for decades of expansion and modernization as suburban growth and industrial activity continued to increase Wastewater flows.

Innovation has consistently defined MCUA's evolution. Beginning in the 1960s and 1970s, the Authority transitioned from primary treatment to advanced secondary biological treatment using high-purity oxygen, significantly improving pollutant removal. Over time, MCUA expanded its collection system, pump stations, and treatment capacity to accommodate storm events and growing demand, while maintaining strict regulatory compliance. The implementation of the Industrial Pretreatment Program in 1984 further strengthened environmental protection by controlling industrial discharges and reducing heavy metals entering the treatment process.

Today, the MCUA system integrates advanced treatment processes, energy efficiency, and resource recovery. Wastewater moves through grit removal, primary settling, oxygen-based biological treatment, and final disinfection before discharge, with portions of treated water reused within the plant. Solids removed during treatment are processed into Class A, Exceptional Quality biosolids, meeting the highest regulatory standards. In addition, MCUA generates energy on-site using landfill gas, solar fields, and backup generation, reinforcing operational resilience while reducing reliance on external resources.

After 75 years, MCUA remains committed to protecting the Raritan River and Raritan Bay through responsible stewardship and continuous improvement. With a skilled workforce and ongoing infrastructure upgrades, the Authority continues to adapt to evolving environmental challenges. Its history reflects not only technological progress, but a long-standing dedication to serving the community and preserving New Jersey's waterways for generations to come.



SOLID WASTE DIVISION

Sayreville Students Explore Sustainability Through Landfill Tour



Solid Waste Division January 2026

Year	Monthly Tons	Cumulative Tons
2026	44,574	509,532
2025	40,851	515,777

An average of 252 trucks hauled an average of 1,714 tons of waste to the Landfill facility each day.

Seventh-grade students from Sayreville Middle School recently took part in an educational visit to the local landfill, where they were guided through daily operations by General Superintendent Brian Murray and Operations Superintendent Marc Matuszkiewicz. The informative tour walked students through each stage of the waste management process, from collection to final disposal. Students also observed the heavy machinery used on-site, gaining a firsthand look at the technology and teamwork required to manage waste safely and efficiently.

The visit emphasized the landfill's commitment to environmental sustainability while encouraging students to think more carefully about their own role in responsible waste practices. By seeing how waste is handled beyond the classroom, students developed a deeper appreciation for the systems in place that protect the environment and public health.

This experience is part of a larger partnership between the Middlesex County Utilities Authority (MCUA) and the Sayreville School District, which in recent years, secured the Expanding Access to Climate Change Education and NJ Student Learning Standards Through Interdisciplinary Learning and Community Resilience Projects Competitive grant. Supported by the New Jersey Department of Education (NJDOE), the grant focuses on expanding equitable access to climate education and promoting student-centered, hands-on learning that connects classroom lessons to real-world environmental solutions.

Through this collaboration, students will have access to local expertise in areas such as waste reduction, water management, and climate resilience. For the MCUA, the partnership reflects its ongoing commitment to environmental stewardship and sustainability, while empowering students to apply their learning to meaningful community-based climate action projects.

TRAINING SCHEDULE

MARCH TRAINING: PERSONAL PROTECTIVE EQUIPMENT

DATE	TIME	LOCATION	DEPT
MARCH 10TH 2026	7:30 AM, 9:30 AM, 12 PM, 2 PM	PUBLIC MEETING ROOM	ALL WASTEWATER EMPLOYEES
*MARCH 12TH 2026	7:30 AM, 9:30 AM, 12 PM, 2 PM	PUBLIC MEETING ROOM/ANNEX	ALL WASTEWATER EMPLOYEES
MARCH 17TH 2026	7:30 AM, 9:30 AM, 12 PM, 2 PM	PUBLIC MEETING ROOM	ALL WASTEWATER EMPLOYEES
MARCH 19TH 2026	7:30 AM, 9:30 AM, 12 PM, 2 PM	PUBLIC MEETING ROOM	ALL WASTEWATER EMPLOYEES
MARCH 24TH 2026	7:30 AM AND 9:30 AM ONLY	PUBLIC MEETING ROOM	ALL WASTEWATER EMPLOYEES

Please note the 2 PM class on 3/12 will be held in the Annex Conference Room



In Memory of John Orecchio

The MCUA shares their deepest condolences with the family of John Orecchio, beloved Construction Manager of The Middlesex County Utilities Authority; he will be greatly missed.