

Operations & Maintenance Report

July 27, 2023



Madison Metropolitan Sewerage District

June Plant Performance

CBOD5



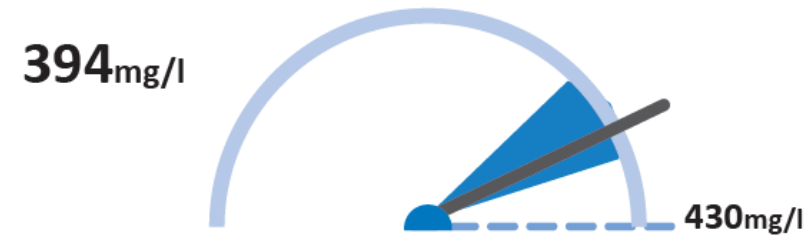
TOTAL SUSPENDED SOLIDS



AMMONIA



CHLORIDE



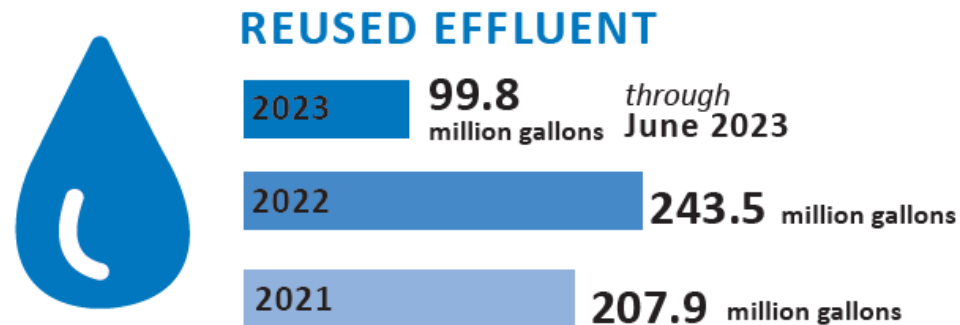
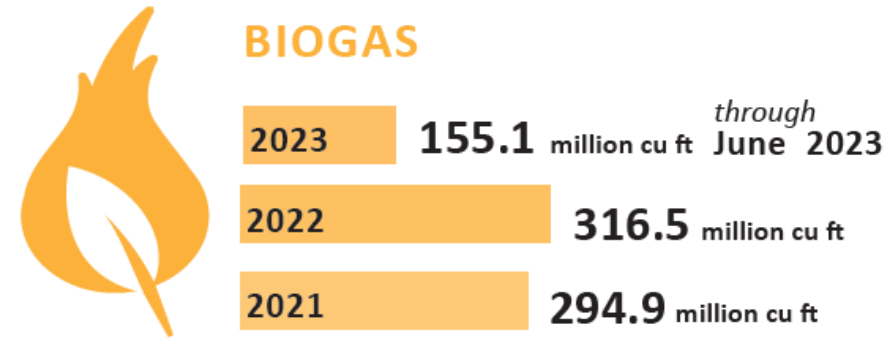
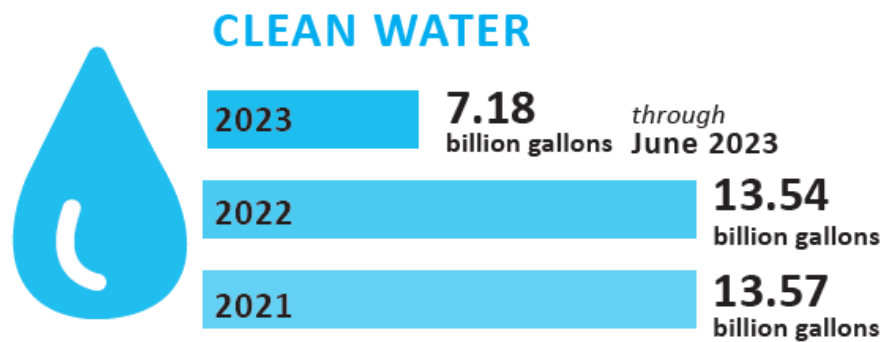
PHOSPHORUS



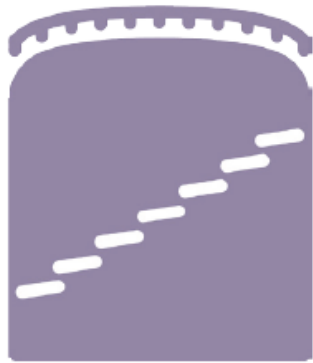
FECAL COLI BACTERIA



June Resource Recovery



June Resource Recovery



BIOSOLIDS STORAGE

through
June 2023

58.1%
FULL



METROGRO CAKE

2023 **188.2** cubic yards through
June 2023

2022 **1,939** cubic yards

2021 **152** cubic yards



STRUVITE

2023 **321.1** tons through
June 2023

2022 **556.2** tons

2021 **563.1** tons



METROGRO

2023 **19.0** million gallons through
June 2023

2022 **38.6** million gallons

2021 **38.7** million gallons

High effluent solids (TSS) overview

- June 23rd & 24th spiked above 10 mg/l monthly limit (34.1 and 14.8 mg/l)
 - Attributed at time to algae control rotation and season denitrification
 - June 25th returned to normal season values
- June 26th began gradual climbing
- July 3rd evaluated available weekend data, felt stabilizing, planned adjustments if worsen
- July 5th determined visually still not performing, adjustments to “simplify”
 - Suspended algae control rotations on final clarifiers
 - Discontinued sludge wasting trial in east plant, bring all plants to common operating basis
 - Reduced on-line clarifiers
- July 8th and 9th worst days of event (42.9 and 42.5 mg/l TSS, respectively)
 - July 12th DNR was informed of our belief in permit violation once final lab numbers were in
- Effluent TSS returned below monthly limit on July 15th (6.8 mg/l)

“Tennis balls” on clarifier 7



Final clarifier items to note



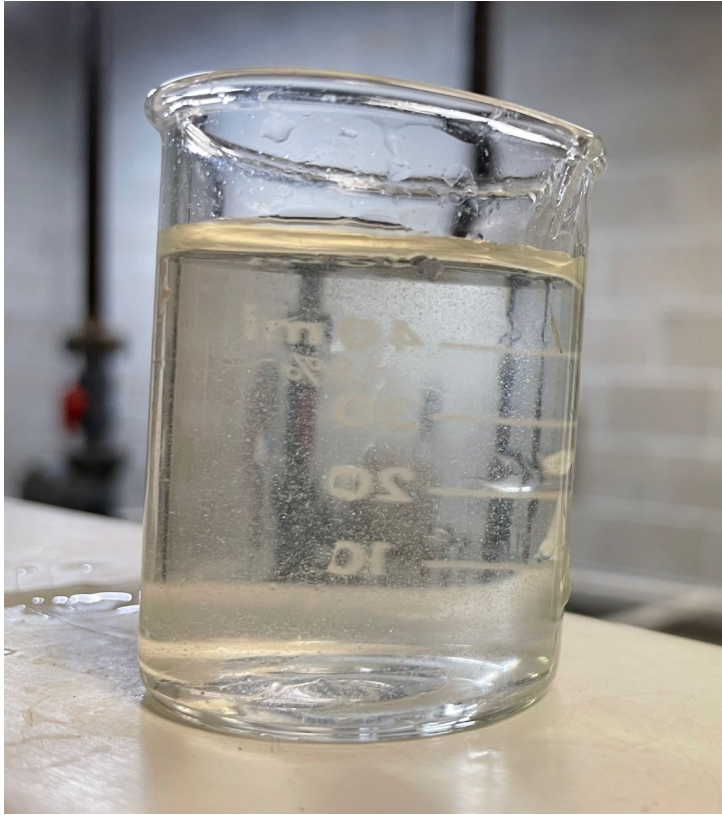
Final clarifier 8 coming off
algae control rotation (2022)

Final clarifier “TowBro”
withdrawal manifold
before wash-down

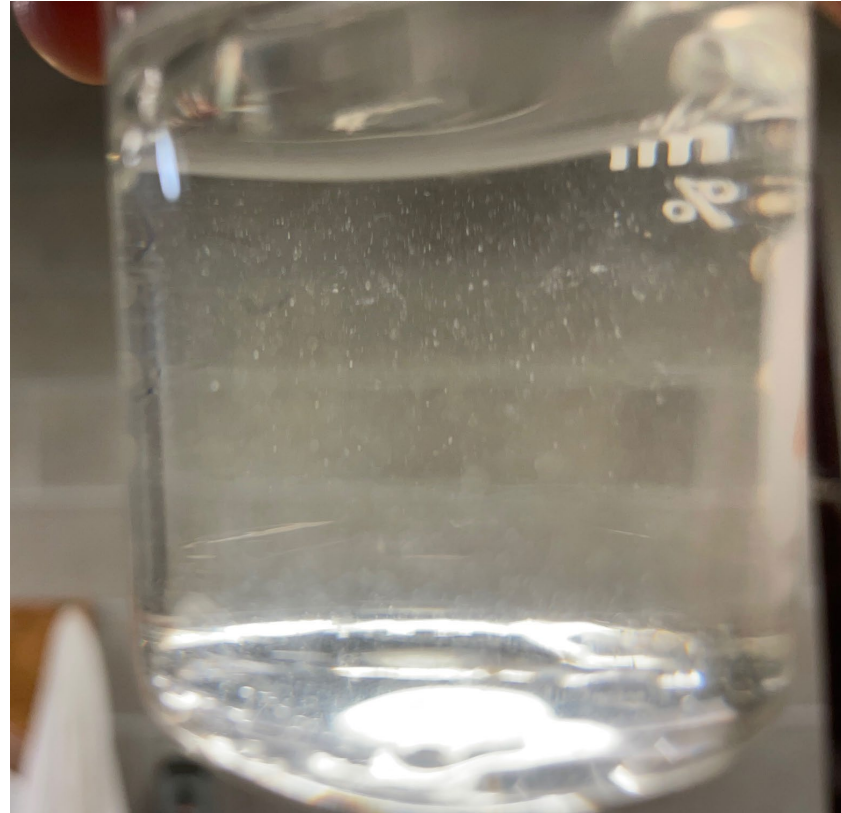


Many small clumps
“popping sludge”

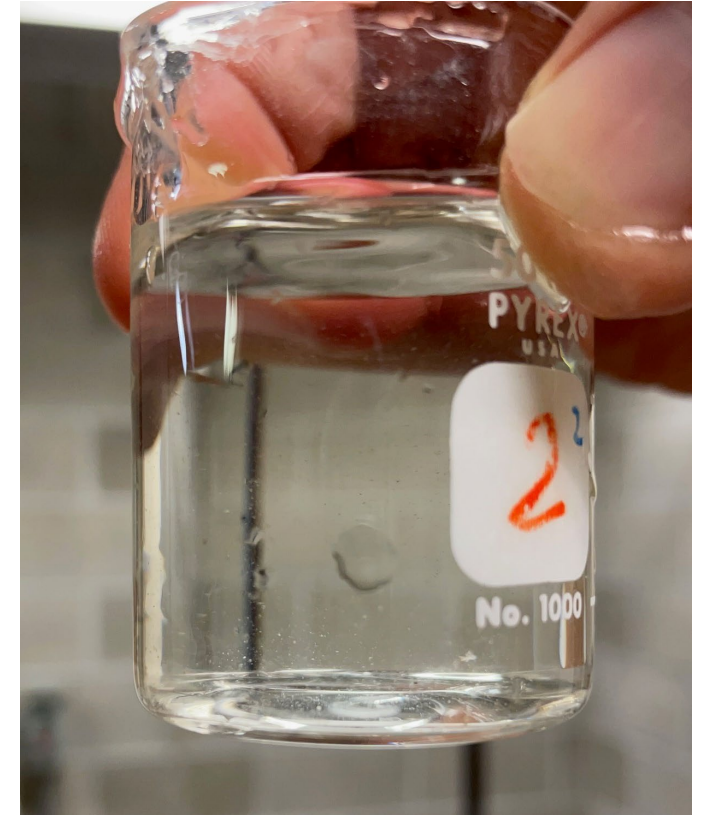
Visual of high solids event



July 13 7:00 am CE grab – 14.2 mg/l



July 14 1:00 pm CE grab – 12.5 mg/l



July 17 8:00 am CE grab – 5.7 mg/l

Note that the concentrations shown are for the daily composite effluent (CE) sample while the visual image is of a grab from the CE sampler at the approximate time noted and thus are similar but not the same sample

Thank you!

Madison Metropolitan Sewerage District

