

AA AQUA ASSIST

by  **DRYLET**
helping nature do its job™

THE BREAKTHROUGH

Aqua Assist is field-proven to reduce biosolids, sludge hauling costs, polymer usage, and ammonia while increasing plant carrying capacity and improving compliance. Aqua Assist requires no commitment to new or expensive equipment. It is inherently scalable to wastewater resource reclamation facility (WRRF) of any size and any design. The product can be easily applied at any facility into the aeration basin.

TECHNOLOGY

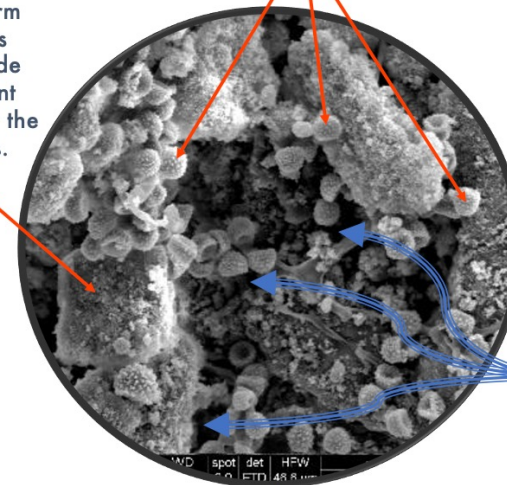
Drylet's award-winning technology draws from **material science and microbiology**. Its Aqua Assist biocatalyst is comprised of **carefully selected beneficial microbes embedded in particles** made of a non-toxic engineered porous media substrate. The particles protect the microbes, allowing them to thrive and replicate fast so they can be effectively integrated into microbial ecosystems.

Innovative biocatalyst harnesses the power of beneficial microbes

Embedded beneficial microbes, carefully selected to perform in aerobic systems, attach to the media and form a biofilm, providing resiliency to the microbial ecosystem.

Microbes are protected from attack by phages and other predators

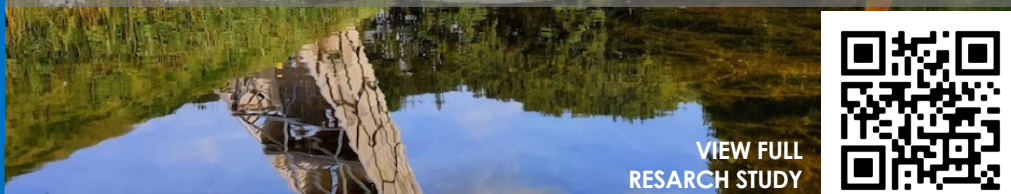
Media displays non uniform structures that provide attachment surfaces for the microbes.



Soluble materials are adsorbed and diffused into the particle, feeding the microbes.

Engineered, inorganic, porous particle (200-600 microns) protects its resident microbes.
1 kg provides 143 000 m² (14,3 ha) of surface area.
Its density allows it to sink in solid layers.

25% reduction in WAS (Waste Activated Sludge) production year-over-year



VIEW FULL
RESEARCH STUDY



WwTW Halsteren, Netherlands

- 12 700 population equivalent (PE) capacity
- 525 m³/h maximum hydraulic capacity

2.1 kg or the equivalent of a 600-g daily dose of Aqua Assist was manually added twice a week during the six-month pilot period.

A 25% reduction in WAS production year-over-year, from 200 tons to 155 tons of dry solids, was achieved using Drylet's Aqua Assist.

RESULTS SUMMARY

- **25% reduction in WAS** (Waste Activated Sludge) production year-over-year, from 200 tons to 155 tons of dry solids
- **MLSS increased from 2.7 g/l up to 3.7 g/l** without any process consequences.
- Effluent quality remained good and stable.

In addition, the cost of using Aqua Assist ended up being significantly lower than the annual savings on sludge handling costs, which moved the project to a commercial contract.

21% reduction in solids hauled at 240 000-PE facility in Italy



WWTP ran by #2 wastewater treatment operator in Italy

- 240 00 population equivalent (PE) capacity
- 40,000 m³ of daily flow/capacity

Main goals were lower sludge production, improved WWTP process performance, and higher resilience of the sludge blankets during stormy rains.

During the 94-day project, Drylet's Aqua Assist product was dosed daily at the rate of 9.3 kg per day.

RESULTS SUMMARY

- **21% reduction in solids hauled**, or 1.15 dry ton per day of sludge reduction compared to pre-Drylet period
- **30% reduction in WAS yield** based on BOD influent
- **41% reduction in WAS generation**
- **34% decrease in total WAS flow** (m³/day)
- In addition, **improved operations** allowed for less pumping, with reduced energy demand and less wear-and-tear on equipment.