

AA AQUA ASSIST

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.

THE BREAKTHROUGH

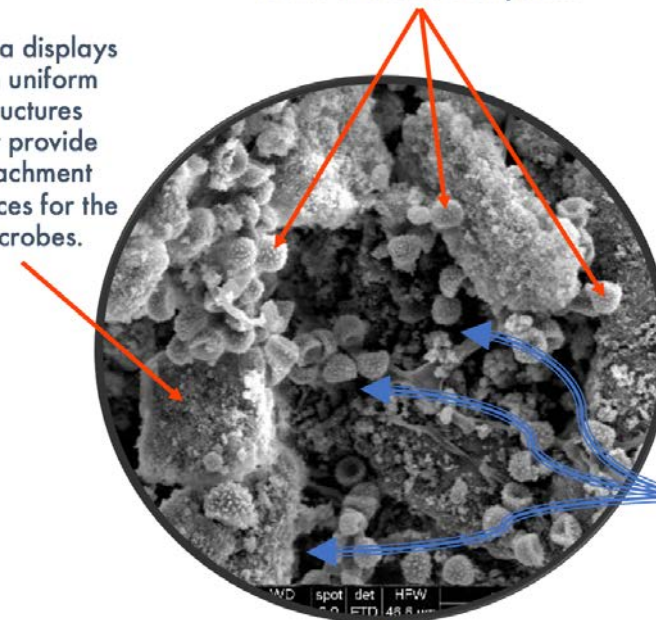
Aqua Assist is field-proven to reduce biosolids, sludge hauling costs, polymer usage, and ammonia while increasing plant carrying capacity and improving compliance. Aqua Assist requires no commitment to new or expensive equipment. It is inherently scalable to wastewater resource reclamation facility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

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 lb provides 700,000 ft² of surface area.
Its density allows it to sink in solid layers.

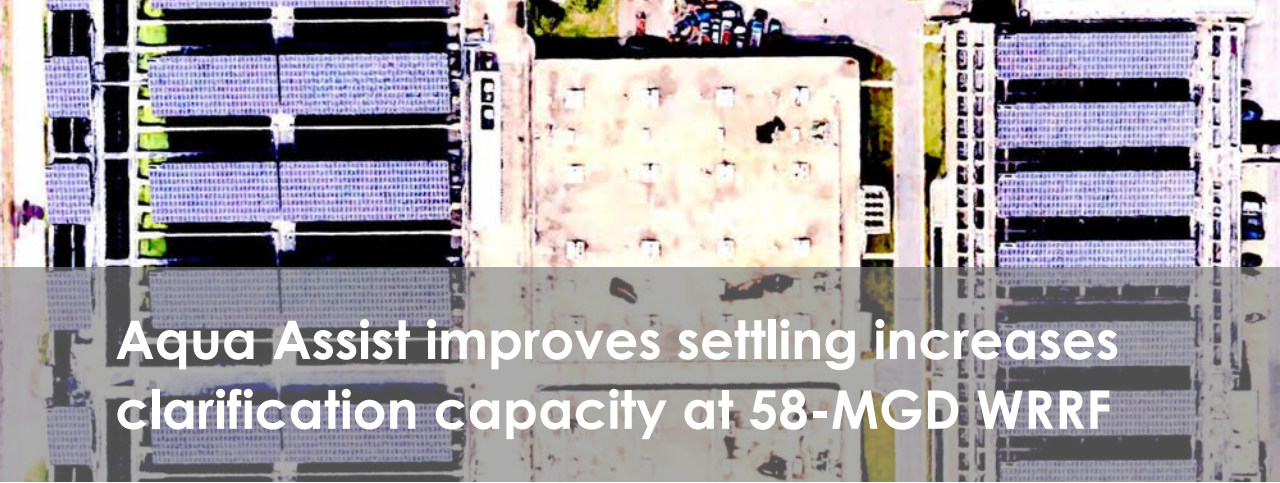
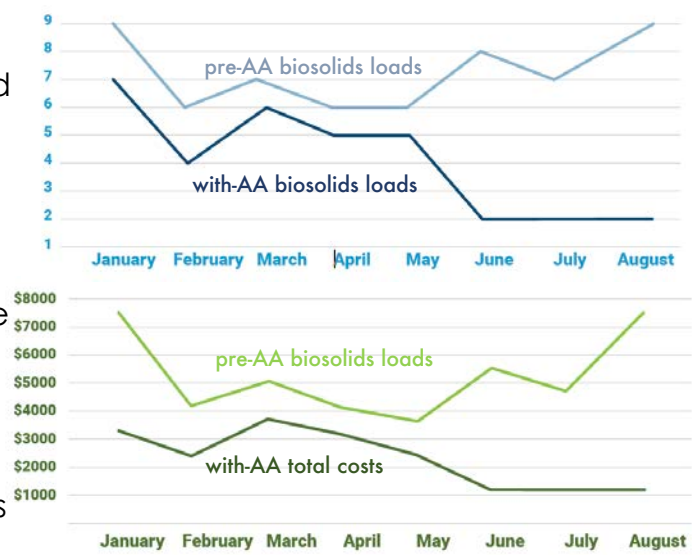


Aqua Assist reduces biosolids volume up to 78%, slashes costs at small WRRF

The South Deerfield plant had issues with settling in the clarifier and high costs associated with solids management. They needed a solution that would improve settling and reduce solids while also enhancing the plant's performance. Using Drylet's risk-free demonstration model, South Deerfield was able to validate the effectiveness of Aqua Assist (AA). Drylet used its data modeling software to configure a digital replica of the plant based on historical operational and process data from South Deerfield.

The modeling tool informed recommendations for product application and enabled the plant to evaluate scenarios on the impact of Aqua Assist on the operations. To jump start the population of Aqua Assist microbes in the system, the plant began by adding 2 lb of product per day to the aeration tank at the splitter box, where the influent and RAS flows meet ahead of the aeration tank. After one week of remedial dosage, the maintenance dose of 1 lb per day was applied and has been retained since.

Biosolids loads and hauling costs



Aqua Assist improves settling increases clarification capacity at 58-MGD WRRF

RESULTS SUMMARY

- **Settling Volume (SSV)** showed a **37% reduction** over the 4-week demonstration
- **Sludge Volume Index (SVI)** improved from 140 to about 80 ml/g – a **42.8% decrease**.
- **Clarification capacity** increased by about 960 gals/ft².day, or enhanced capacity for the clarifier to handle 4-5X of average flow during high flow events.

The 58-MGD WWTP operates a high purity oxygen-activated sludge wastewater treatment process. It runs two parallel aeration batteries with three passes each. The North Aeration Battery had historically better settling behavior than the South Aeration Battery. The demonstration was intended to determine whether Aqua Assist could be a viable, non-chemical option for enhancing settling and improving clarifier capacity during high flow periods.

The SVI trends were higher in the South Aeration Battery prior to the start of the dosing. After two weeks, the SVI differential between the North and South train was closed from about **23% to about 8%**. By the end of week 3, the SVI in the South train had reached 16% less than the value in the North Train. Similarly, **settling volume went from being 30% higher in the South vs. North train to being 23% lower over the duration of the test**. The improved settling in the South Aeration Battery continued to be observed two weeks after dosing stopped.

HOW WE WORK

- 1. Data collection:** Data is at the foundation of all the work we do. Our detailed, system-tailored questionnaires guide our new customers through the essential first step of our process: gathering historical data about flow, loading, operations, and costs.
- 2. Process modeling:** Data analysis is what allows us to establish an accurate assessment of the current operations, the outcomes our solution can deliver, and the most appropriate application protocol. We do this by developing a unique digital model of the facility.
- 3. Risk-free demonstration:** If the model has indicated that our solution can deliver valuable operational and financial benefits to the site, we go ahead with a three-month risk-free demonstration. This means that the customer pays for the product only if the forecasted outcomes have been delivered. Customer support, in the form of weekly calls, onsite visits, and ad hoc engagement, is provided for free over that period.
- 4. Subscription or performance contract:** After the trial concludes, we discuss the customer's needs and goals in order to determine the terms of our business relationship. At all times, the knowledge that we can win only if our customer wins remains our North Star.

“I am highly recommending Drylet's Aqua Assist biocatalyst. It is working amazingly well at our ancient, in-dire-need-of-upgrading, extended aeration plant. Even with all the rags, grit, and other trash all swirling around these amazing bugs, they are still getting the job done.” **Keith Milne, Chief Operator, Town of Deerfield, MA**

“I couldn't run my plant without Drylet, it simply does what it says it does.” **Charles Paige, Chief Wastewater Operator, City of Trinity, TX**

“Aqua Assist worked wonders on one of our historically 'troubled' sewer plants. We decreased sludge hauling over 33%; eliminated bulking in our clarifier and decreased our Total Suspended Solids by more than 50%, all without making any changes to our day-to-day plant operations.” **Jerri Heit, Field Utility Supervisor, SouthWest Water Company**

ABOUT DRYLET, INC.

Drylet is focused on accelerating nature's biological remediation process through the use of its proprietary, benign biocatalyst. Founded in December of 2013, Drylet has successfully demonstrated the commercial application and viability of its technology to remediate organic waste and boost biogas production at wastewater treatment facilities, industrial wastewater sites, and livestock operations.

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