AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

SUCCESS STORIES

PLANT NAME AND LOCATION
KENLY NC WWTP - KENLY, NORTH CAROLINA

DESIGN DAILY FLOW/PEAK FLOW
.250 MGD/ .630 MGD

AQUA-AEROBIC SOLUTION
(2) 20 HP OXYSTAR® ASPIRATING AERATORS

The Town of Kenly, NC Improves Oxygen Levels and Mixing in Their Oxidation Ditch

In the far eastern part of Johnston County, NC sits the town of Kenly. In 2023, the Kenly NC WWTP was starting to experience performance decline of their treatment process due to their aging disc rotors in their oxidation ditch. Maintenance costs were increasing, and the system was struggling to meet targeted Dissolved Oxygen (D.O.) levels. While the rotors had not reached complete failure, performance degradation was beginning to effect throughput and operating stability.

A full rotor replacement was an option, but would have represented extensive capital outlays and an extended period of time waiting for production and installation of new disc rotors. A solution was needed that could stabilize performance, reduce the strain of the existing equipment, and expedite installation without a major shut-down of the system.

Summer months at the site were especially troublesome in meeting targeted D.O. concentrations. It was time to review options for supplemental technologies to keep the system in compliance. In 2025 (2) 20 HP OxyStar® Aspirating Aerators were installed at the site. The units were chosen based on performance as well as minimal costs when compared to other options. Installing the OxyStar aerators caused no disruption to the biological process, and no permanent infrastructure changes were required.



OxyStar® aerators in operation at Kenly NC WWTP

With only a crane, electrical and cable mooring, and a few hours of labor the (2) OxyStar units were installed without the need to dewater the basin.

"*We have been really happy with the OxyStar units with not only raising our D.O. levels and the additional mixing they provide, but also the fact that there is no maintenance required on the units. There's nothing to really do with them but turn them on and off.*" - Phillip Smith, Kenly NC Plant Superintendent

Protecting the World's Water.

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