



alpha bio

WASTEWATER INNOVATION

Application of bioaugmentation for surplus sludge reduction in the WWTP of the Industrial Zone in Patras, Greece

The industrial WWTP of Patras, which is receiving wastewater from local industries has an average influent flowrate of 3,500 – 4,000 m³/d. The plant was producing surplus sludge of approximately 2.500 tons per year, which needed to be reduced due to the high expenses for decanter operation and sludge handling. With the aid of bioaugmentation, the produced sludge was significantly reduced. Further electric power and financial savings arose from the minimized dewatering presses running time, less aeration, less polyelectrolyte and chemicals usage, while also from the reduced cleaning works that was necessary in the pumping station due to fats elimination. Interesting fact is that the WWTP's microbial community was strengthened and able to overcome situations where toxic oil-based wastewater entered the plant.

