



alpha bio

WASTEWATER INNOVATION

Application of the bioaugmentation technology for odor and corrosion control in the sewage network of Rethymno city, Crete island

The implementation of the bioaugmentation method for the odor and corrosion control in a part of the sewer network of the old city of Rethymnon takes place after the signing of the relevant contract with Rethymnon municipality, commencing in 2019. During summer months due to increased touristic traffic, the network serves an average sewage flow of 3,000-3,500 m³/d. The method is based on the continuous and controlled addition of a bacterial culture and a mixture of nutrients at selected points of the network and aims at the microbial oxidation of the existing hydrogen sulfide, which is developed by septicity and is primarily responsible for odor problems, and the subsequent prevention of hydrogen sulfide and other malodorous gases production. In other words, the method acts preventively to the development of septicity in the sewer system. After the application of bioaugmentation method, a dramatic reduction of hydrogen sulfide concentration has been observed in selected points of the network, where systematic sampling and analyzes are performed in a certified chemical laboratory, with values not exceeding 1 mg/L. Furthermore, Alphabio received highly positive reviews for the success of the applied odor control method, both from the technical staff of the municipality, primarily due to the absence of any complain disturbances from the citizen's part, as well as by the owners of stores/restaurants in this popular area.

