



Association of Towns For Environmental Protection (Carmel-Sharon)

SBP technology implementation as an additive treatment in domestic wastewater treatment plant, Nir Etzion, Israel

Association of Towns Environmental Protection Carmel-HaSharon, including 17 municipalities organization, that supervising and monitoring the quality of air, water and soil in their judgment area.

During the year 2013, BioCastle had conducted an innovative project that was aimed to increase the effluents quality and decrease the excess sludge amounts in municipal wastewater treatment plant (MWWTP) Nir Etzion, Israel. BioCastle has implemented the SBP technology within the MWWTP bioreactor, in order to induced advanced bio-augmentation treatment.

Nir Etzion MWWTP, treats inflow waste capacity of 5500 cubic meter per a day of domestic wastewater. Since the year 2012, the effluents quality of the MWWTP significant decreases, probably due to inflow ingredients changes (lowering the ratio BOD/COD, indicating of higher industrial inflow stream capacity), and as well, inflow capacity elevation by 10%.

During the project period BioCastle had implemented approximate 90,000 SBP capsules within the MWWTP bioreactor.

According to our monitoring results, we had found that the SBP technology succeeds to increase the biological process stabilization by reducing the biological process shocks episodes (frequency and intensity), and by decreasing the process recovery time from each biological episode stress. Therefore, we are evaluating that the SBP technology proved to employ a successive bio-augmentation process to municipal wastewater activated sludge treatment.

In summary, Nir Etzion project has presented the ability of the SBP technology to increase the process treatment yield, without the need for infrastructure alternation


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