

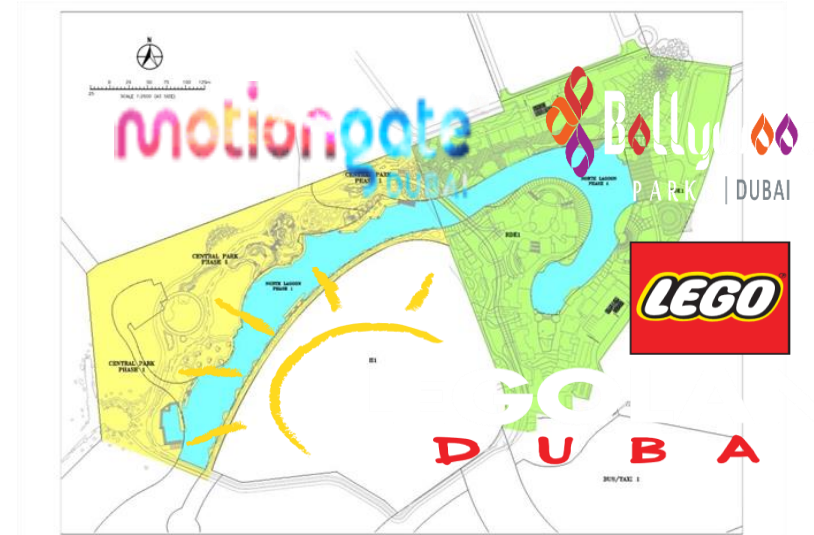
Dubai Parks Lagoon – TSE Polishing System



PROJECT BACKGROUND

- Situated at south-western Dubai, The Dubai Parks Themed Entertainment Resort (Dubai Parks), is one of the largest attraction destinations in the Middle East and is developed by **Dubai Parks and Resorts LLC (DPR)**.
- Started from year 2014, the Dubai Parks Lagoon (Phase 1) is completed on year 2016 with surrounding attractions including the Central Park, Hotel, **Motiongate**, **Bollywood** Theme Park, **Legoland** and RDE (Retail, Dining, and Entertainment).
- Treated Sewerage Effluent (TSE) is polished to provide water with excellent quality as Lagoon water make up due to drying and evaporation process.

دبي پارکس
AND RESORTS



SAMSUNG



PROCESS

- The greatest challenge of the Lagoon design is to maintain the nutrients level (total nitrogen and phosphorous) at very low level (**TN < 0.5 mg/L & TP < 0.05 mg/L**) to avoid eutrophication process. As water is precious item in the area, TSE is reused and polished as medium of make up water, with low contaminants of TN, TP, and total suspended and dissolved solids (TSS & TDS).
- **Penfluid** has proposed a 1000 m³/day TSE Polishing Plant that adopts technologies of Nitrification & Denitrification with MBBR media, Pressurized Media Filtration and Membranes Separation (UF&RO).

