



**QUA's EnviQ[®] Submerged
MBR successfully treats
wastewater at the luxury
hotel in India.**



Pure Technology



Client: Luxury Hotel, Udaipur, India.
Existing STP capacity: 8.3 m³/hr (36.7 gpm).

Challenges:

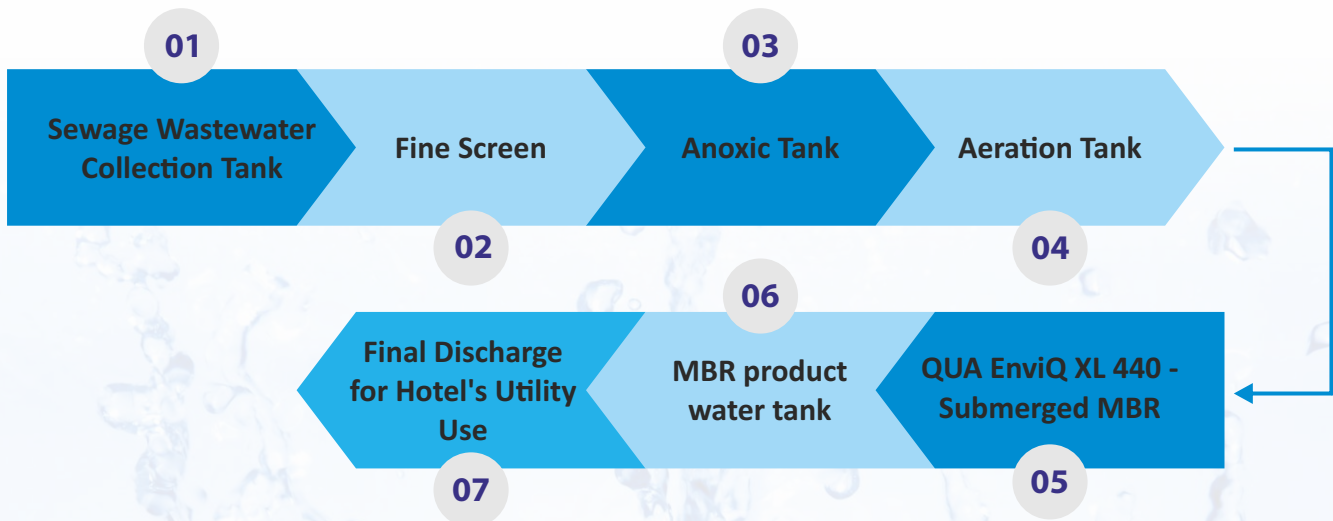
- ✧ QUA was approached by the client, who was encountering challenges in recycling water through their existing conventional treatment method.
- ✧ Unable to use STP discharge water for their uses and needed high quality water.
- ✧ The existing facility had a very limited footprint, posing a challenge for upgradation.

QUA'S Solutions:

QUA offered the EnviQ 440 XL model, a submerged membrane bioreactor (MBR) flat sheet membrane solution, which was evaluated against multiple criteria, including desired membrane surface area flux, footprint, capital investment, as well as low operation and maintenance costs. This innovative solution also reduces the need for secondary and tertiary clarifier treatment.

QUA's membranes are engineered to enhance the operational efficiency and maintenance of MBR facilities. They ensure reliable and consistent production of ultrafiltration quality effluent. EnviQ's cutting-edge design incorporates a robust PVDF flat sheet membrane and a proprietary diffuser system, guaranteeing exceptional durability and performance.

Plant Scheme Offered:



Membrane System Design Offered:

QUA MBR Model	Active Area (m ²)	Pore Size (Microns)	Permeate Flux (lmh)	Required MLSS (mg/l)	Air flow rate (nm ³ /hr)	Product flow (m ³ /hr)
EnviQ 440 XL	440 m ²	0.04	22.7 LMH	3,000-8,000	110	10-12

Results:

The system has consistently operated meeting the client's requirements since its implementation in 2021. The water chemistry has remained constant, ensuring stability and reliability, and the permeate flow has been consistently maintained within the range of 10-12 m³/hr, demonstrating the MBR system's steady performance over the time.