

## Membrane Bioreactors – EWT MBR System

Delhi, India

### How we create value

- Ovivo's installed India's largest municipal MBR system
- Innovative gravity assisted siphoning system reduces energy costs
- The plant is housed in a building purpose-designed to complement its environment

### Brief

In 2010 Delhi is hosting the Commonwealth Games (CWG) in which seventy-one teams from fifty-three nations will participate.

Delhi Jal Board (DJB) sought out technology which would be best suited to treating and recycling the wastewater generated by eight thousand athletes and officials in more than one thousand flats at the CWG Village complex.





### **Solution**

An Ovivo EWT™ membrane bioreactor (MBR) was selected as the treatment technology on the basis of a complete life-cycle cost analysis completed by the consulting engineer. The plant has a design capacity of 4.542 MLD and is understood to be the largest municipal submerged MBR thus far installed in India. Housed inside a building designed to blend sensitively with its surroundings, the plant is equipped with twenty-four flat sheet submerged membrane units (SMUs). The treatment flow scheme includes grit removal, an equalization basin, fine screening, two anoxic basins, two pre-aeration basins and four MBR basins.

### **Outcome**

The plant is now commissioned and ready to treat the wastewater. One of its key features is its ability to generate permeate in pumped assisted gravity (PAG) mode. This allows the operator to switch off permeate suction pumps after siphoning starts, resulting in significant energy savings.

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