

## Municipal Wastewater



# FilmTec™ reverse osmosis used at the water reclamation site Torreele, Belgium

### The challenge

The capacity of the dune aquifer is limited due to the presence of the salt water north (sea) and south (polder area) of the dune water catchment. Because of touristic activity during summertime the daily consumption might be 2 times higher compared to the average consumption.

### The solution

In July 2002 Aquaduin, the new name for the Intermunicipal Water Company of the Veurne region (I.W.V.A.), started to produce infiltration water. The source is wastewater effluent; the techniques are a combination of membrane filtration (submerged ultrafiltration + reverse osmosis). The permeate of the RO is used for managed aquifer recharge (MAR) of the dune water catchment of St-André (Koksijde).

### The benefits

Natural groundwater extraction is reduced. Availability and Quality of the drinking water is secured over the full year. Despite the application of continuous low concentrations of chloramine, the membrane lifetime is 6 years on average.

### Fast Facts

**Location / Country:** Torreele, Belgium

**Application / Market:** Municipal Drinking Water

**Water type:** Municipal Wastewater

**Technology:** DuPont FilmTec™ Fortilife CR100 + BW30XFRLE

**End-user:** I.W.V.A.

**Total # of elements:** 432

**Plant capacity:** 7000 m<sup>3</sup>/day = 7 MLD [1.8 MGD]

**Start-up date:** 2002

**Feed water source:** Wastewater (Municipal)

**Feed water quality:** 1,000 ppm TDS

**Product water quality:** <100 ppm TDS

**Temperature range:** 8–23 °C

**Pretreatment:** submerged UF

**5+ years** operating membranes without replacement at continued chloramine dosage.



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