

Reed Bed Treatment System

Wastewater treatment plant Mahshahr

Owner:
Petrochemical
Special Economic Zone
Persian gulf region,
Islamic Republic of Iran

Treatment of domestic wastewater
from a worker camp

Person equivalent:
4,000 PE

Planning: 02/2002 – 10/2002
Construction: 01/2003 – 06/2004

Pretreatment:
- Screen, pumping station
- Sedimentation tank
- Separate sludge silo
- Distribution by vacuum siphon

Effluent parameters (2008):
COD < 30mg/l
BOD₅ < 18 mg/l
NH₄-N < 5 mg/l
TSS < 3 mg/l

Secondary treatment:
- Vertical subsurface flow constructed
wetland
- 8 reed beds
- Two-stage system

Discharge:
- Reuse for irrigation

Gross space requirement:
- 9,000 m²

Special features:
- Temperature up to 45°C

