



- **END USER:**
Ministry of Finance,
Riyadh - KSA

- **CLIENT:**
SBG – Public Buildings
& Airports

- **INDUSTRY:**
Waste Water Treatment

- **DATE OF
CONTRACT AWARD:**
2011

- **CONTRACT
COMPLETION:**
2012



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Al Shumaisi Emergency Lodging Center Project – Makkah, KSA



INTRODUCTION:

12,000m³/day MBR waste water treatment project was awarded to ACWA Emirates by Bin Laden Group in KSA, serving emergency lodging center in Shumaisi – Mekkah Road – Saudi Arabia.

DESCRIPTION:

The plant will be constructed with four identical 3,000m³/day streams, providing the facility with the flexibility during operation to bring additional treatment capacity as flows increase, and redundancy for maintenance purposes. In this desert area, the main planned use for the high-quality effluent is irrigation.

SCOPE OF SUPPLY:

The treatment process will include all necessary coarse/fine screening, de-gritting and anoxic pre-treatment ahead of the MEMTREAT ® bioreactor. The plant will be constructed with four identical 3000m³/day streams, providing the facility with the flexibility during operation to bring in additional treatment capacity as flows increase, and redundancy for maintenance purposes.

The treated effluent is of an extremely high quality, suitable for direct discharge without further treatment for uses such as irrigation, district cooling, batching plants and industrial process waters. In this desert area, the main planned use for the effluent is irrigation. Downstream of the MBR system, the Al Shumaisi plant will provide final disinfection using chlorine to prevent regrowth of organics during storage. The waste sludge will be dewatered using a belt press.

The plant will have a high degree of automation and therefore the reliability of the technologies used was critical. The contract also calls for an extremely high quality effluent with a BOD and TSS of less than 5ppm. The treated wastewater quality is such that it will be designated for unrestricted use – lower quality wastewaters have strict restrictions on the types of crops to which they can be applied.