

# Upgrades at Al-Dhakhira PTP site

## Client

Public Works Authority (ASHGHAL)

## Scope of Work

Construction supervision

## Location

Qatar

## Types of Activities

Civil works  
Electrical  
Instrumentation  
Mechanical

Having a foul sewerage network, Al-Dhakhira village is built on an inlet of the Persian Gulf; about 60 km away from Doha, Qatar. Currently, the village is undergoing fast development with a number of housing schemes proposed for the area.

Al-Dhakhira PTP has a conventional Activated Sludge Process (ASP) treatment plant, designed for 1,600 m<sup>3</sup> /day and will be extended to double its capacity to 3,200 m<sup>3</sup> /day. There is no primary settlement process available; the process is based on a biological treatment followed by a tertiary treatment. Each process stream comprises aeration and secondary settlement tanks which provide the biological treatment.

The preliminary treatment works with two mechanical screens; one operational and the other is standby.

The wastewater is pumped directly to an inlet pumping station located underground, which has two hopper impeller submersible pumps arranged in duty/standby configuration.

Flows are then pumped into the elevated inlet screens; all tanks are elevated glass lined steel. The aeration system is based on a fine bubble diffuser, and the clarifiers are flat-bottomed settlement tanks.

ECG's scope of work incorporates the similar treatment process (as indicated above) to integrate the existing plant with its new extension to work into a fully automated system.

Package Sewage Treatment Plant (PTP) is upgraded with specific capacity of 3,200 m<sup>3</sup> /day to treat sewage flows.

