



Al Hunayy Water Transmission Project

170 km twin transmission pipelines supplying potable water to Riyadh City

Saudi Arabia

Riyadh

Today Riyadh is one of the fastest growing and most prosperous cities in the world. In less than half a century, it has grown more than a hundredfold. Its population has increased from 20,000 to approximately four million inhabitants, and the city is still growing and prospering.

The need for water is ever increasing. The Al Hunayy water transmission project is part of securing fresh water to the inhabitants of Riyadh City.



King Fahd Stadium, Riyadh

Pipeline Description

A water well system of 65 pumps distributed over an area of more than 400 km² supplies water to a purification plant, where it is aerated and filtered. Well depths are 300 to 400 meters.

The purified water is pumped to Riyadh City through two parallel transmission pipelines each with a length of 170 kilometers and 1,200 millimeters in diameter.

The objective is to supply up to 360,000 m³ of drinking water per day to Riyadh.

CUSTOMER CASE



The pipes are coated with a protective layer before they are buried underground.



One of the numerous wells in the project is being established.

Project Objective

- To perform extensive model-based supervision
- Leak detection and leak location
- Scheduling and pump optimization, including hydraulic constraints, outage of equipment and varying energy prices



The transmission pipelines extend altogether for a length of 170 kilometers.

Leakage Management System Features

Leakage Management System facilitates planning and management of pipeline operation within numerous areas, including:

- Leak detection
- Optimization of pump operation
- Optimization of pipeline planning and operation
- State estimation
- Surge analysis

System Integrator

On the Al Hunnawy project, 7T has been the system integrator and a subcontractor to the main contractor, Siemens Belgium, providing the overall SCADA system.