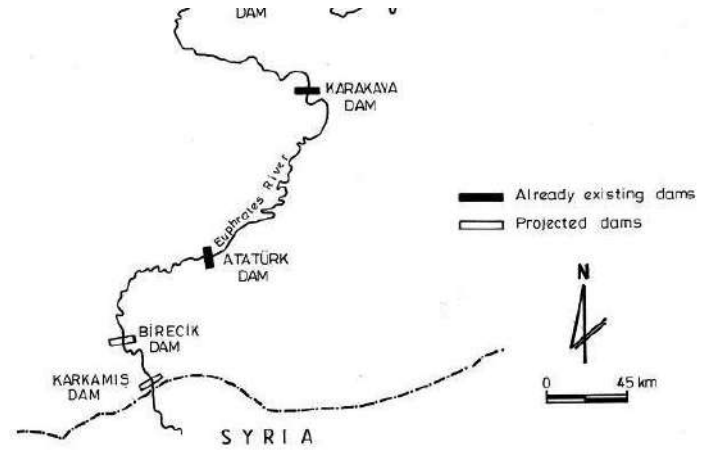




Atatürk Dam

Monitoring of pore pressure fluctuation in order to manage a landslide

Transforming your infrastructure into living assets



Atatürk Dam under construction

Location map

Engineering Services	Monitoring Services
Platform Solutions	Mapping Services

SIXENSE was in charge of performing several deep perforations and installing the piezometers

 Şanlıurfa Province
Turkey

 Started in 2012
80 months



The Atatürk Dam is a rock-fill dam on the Euphrates River, on the border of Şanlıurfa Province, in Southeastern Anatolia Region of Turkey, built both to generate electricity and to irrigate the plains in the area. The construction began in 1983 and was completed in 1990. The Atatürk Dam is one of the largest buildings of its kind in the world.

Since 1968, the sliding experienced on a specific zone of the left bank hill side of the dam has been controlled.

In 2000, 20 stand pipe piezometers were installed in order to monitor the pore pressure variation to better understand the causes of the sliding of the zone.

In 2004, an access path was built from the dam to the affected zone in order to install 25 additional piezometers.

The aim was to keep controlling the evolution of the land slides in order to guarantee that the installation is maintained in optimum conditions from an operational point of view and improve, as much as possible, the safety conditions for the people, the installations and the environment.

SIXENSE was in charge of performing several deep perforations and installing the piezometers at 80 m and 25 m in depth, in order to control the landslide of the left bank hill side.

SIXENSE also set up a completely automated monitoring system to manage and analyse readings every ten minutes during a five year period.

Key figures

45
vertical perforation
of 80 to 25 m

45
piezometers

280
m long horizontal
inclinometer
measurements

1
Automatic
monitoring and
reporting