

Dam, Hydraulic Project

Setta Manikia Dam, Evoia

Central Greece

Project

Water supply – Spillover – Discharge tunnel of dam and relevant works

Dam inundation basin

Dam road works

Construction Cost

Total cost: approx. € 5 m.

Project Schedule

Design: 2005 - 2007

Construction: 2005 - 2007

Project Description

- Water supply – Spillover – Discharge tunnel

Length: 1.180m

Effective cross section: 14,3m²

Works of entrance and exit water supply tunnel and design of water supply tower

- Dam basin water flush

- Reservoir length in the upper flood level: ~ 1.900m
- Reservoir width in the upper flood level: ~ 120m
- Reservoir capacity in the upper flood level: ~ 2,9m³
- Reservoir capacity in the upper storage level: ~ 2,6m³

Geology

Intercalations of schists and sandstones

Thick – bedded sandstones

Surface failures and creep

Max. overburden of water supply tunnel: 126m

Our Services

- Execution and evaluation of geotechnical investigation program
- Design of water supply – Spillover – Discharge tunnel
- Relevant tunnel works:
 - Water supply tower with valves in 4 different levels
 - Technical tunnel inflow
 - Tunnel gates placed in vertical shaft approx. 90m before the exit portal
 - Vertical wall after the tunnel exit portal, for the energy diffusion
 - Technical basin of calmness
 - Non-controlled spillover for the water outflow from the technical basin to the natural canal
 - Drinking water shaft in trench underneath the tunnel
 - Water supply outflow downstream the tunnel towards the control valves house
- Flood wave study downstream the water supply – spillover discharge tunnel, along the new receiver
- Specific techno-geological study of slope's stability of inundation basin

Client

AKTOR S.A.



Dam, spillover and section of water flush basin view



Dam view