

Aqueduct for the Transfer of Water from the Aliakmon River to Lake Koronia

PROJECT TITLE

Aqueduct for the Transfer of water from the Aliakmon River to Lake Koronia

LOCATION

Thessaloniki Prefecture, Greece

CLIENT

Prefecture of Thessaloniki

DESCRIPTION

Lake Koronia is situated in a **RAMSAR protected wetland** in the catchment of the Migdonia basin near the city of Thessaloniki, Northern Greece. The Lake has **suffered from reducing water levels and increasing pollution loadings for over 15 years and cannot presently sustain aquatic life**. A Master Plan commissioned by the EU Cohesion Fund was completed in 1998 in order to develop a **strategy for the environmental rehabilitation of the Lake, including a range of projects to reduce the pollutant load** entering the lake and to **provide a net positive change** of 45 m³/year for the lake water balance over a period of 7-15 years.

The studied intercatchment transfer of about 15 Mm³/year to the Lake from the Aliakmon river is to contribute to the improved water balance requirement. It is to be carried out in combination with measures to **reduce water loss through unsustainable irrigation practices** in the Migdonia basin area, including **rehabilitation of irrigation networks, borehole licences and regulation and replacement of spray irrigation**.

The intercatchment transfer scheme includes a **26,9 km long aqueduct** of steel pipeline of 900 mm, 700 mm and 600 mm diameter, along with **two pumping stations** with a total installed capacity 5810 kW. **Design flow is 1 m³/s for six months annually, amounting to 15 Mm³ annually**. The scheme does not operate during the irrigation season, as the proposed aqueduct intake is from an existing canal conveying irrigation water from the Aliakmon river to the Thessaloniki plain. **The effect of the proposed water transfer on the overall water balance** of the Aliakmon catchment in the Thessaloniki plain region was **examined, taking into account demands for irrigation, hydropower generation, and water supply**, as well as **minimum flow requirements to the river estuary**.

Services Provided:

- Hydraulic Study,
- Hydrological Study,
- Cost-benefit analysis,
- Environmental Impact Assessment study,
- Design of Civil and Electro-Mechanical works, including cost estimates.