

Belle-Ile en Mer - Construction of a desalination unit



Country

France

Client

Communauté de Communes de Belle-Ile en Mer

Date

2009-2012

Cost of works

€10m Excl. VAT

Consultancy Group

- ▶ Sogreah (Group Representative)
- ▶ Eau de Paris
- ▶ Kaso Atelier d'Architecture



Sogreah's services

- ▶ Project management services: initial assessment, preliminary and detailed design, assistance with works contract, inspection of working drawings, supervision of works and assistance with acceptance procedures
- ▶ Planning permission
- ▶ Authorisation documents as per Public Health Code and Environment Code

Objective

The *Communauté de Belle Ile en Mer* has decided to modernise its drinking water production plant and supplement its capacity by building a sea water desalination unit to allow for possible repetitions of the consecutive droughts of 2004 and 2005 which forced the authorities to make up for the water shortfall by organising deliveries by boat.

Description

- Construction of a sea water intake and 240 m³/h pumping facility.
- Construction of fresh water and sea water pipelines over a distance of 6 km.
- Construction of a production unit (5000 m³/d) and a desalination unit (1000 m³/d) using high and low pressure reverse osmosis technology.
- Mixing of the brine discharge with the treatment plant waste discharge.

Environmental measures

- Productive use is made of the heat generated by the electromechanical equipment.
- Watertight roof covering made of a photovoltaic membrane.

At all stages of the assignment, special care was taken to assess and improve the environmental performance of the plant.

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