

# Evreux - Chenapeville drinking water treatment unit Equipment for twelve boreholes Linking pipes



Source: Alain Le Houedec (Architect)



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## Country

France

## Client

Communauté  
d'Agglomération d'Evreux

## Date

2006-2009

## Cost of works

€12.5m before tax

## Sogreah's services

- ▶ Detailed design study, assistance with contract procedures, inspection of working designs, supervision of works, assistance with acceptance, organisation, planning and coordination
- ▶ Production and submission of building permit application documents

In association with:

- ▶ Alain Le Houedec: Architect
- ▶ Xp URBICUS: Landscape designer

## Background

The drinking water supply master plan for the Evreux urban area estimates that needs will exceed the currently available resources by 2020. Furthermore, the borehole at the racecourse is to be abandoned in the near future following construction of the Evreux south-east bypass and because the aquifer in this area is vulnerable.

Thus, in view of the long-term insufficiency and vulnerability of its water resources, Evreux municipal council has decided to diversify, and investigate new

abstraction sites. Suitable sites were investigated in the Iton valley upstream of Chenappeville, on the hills on either side of the Iton and in the Queue d'Hirondelle valley at Saint-Sébastien-de-Morsent.

In addition, given the increasing deterioration in the quality of the water obtained from springs and well fields, a number of measures have already been undertaken to protect resources (protection areas, water intakes at other sites, etc.).

However, these modifications are not sufficient to guarantee compliance with statutory quality standards (order 2001-1220 relating to water for human consumption) because certain values, notably turbidity, exceed the authorised limits.

The Evreux urban district council has therefore decided to build a treatment plant at the Chenappeville drinking water production site, where a pumping station is currently located.



### Description

The works programme concerns the construction of a new drinking water production plant, the equipping of twelve new boreholes and the pipes linking the boreholes to the new plant.

### Treatment unit

- ◆ Treatment capacity: 35,100 m<sup>3</sup>/d;

- ◆ Activated carbon filters;
- ◆ Ultrafiltration.

### Borehole equipment

- ◆ 12 well head buildings and roads and utilities in the immediate surroundings;
- ◆ Equipment for the boreholes and building (12 backed-up pumps with throughputs of 40 to 260 m<sup>3</sup>/h).

### Linking pipes

- ◆ 9,100 lm of supply lines (100 to 500 mm dia. cast iron);
- ◆ Crossing of a railway line, overhanging passages on engineering structures, siphons beneath watercourses.