

Yèvre-Auron basin

Quantity-based management of water resources for irrigation



Country

France

Client

Conseil Général du Cher

Date

2004-2005

Sogreah's services

- ▶ State of knowledge concerning the situation of water resources
- ▶ Assessment of abstraction quantities
- ▶ Assessment of resources-requirements balance
- ▶ Determination of quantity potentially exploitable for irrigation
- ▶ Definition of an indicator of the state of groundwater resources, to be used to anticipate the management of winter abstraction
- ▶ Operational and statutory definition of a quantity-based management system for the basin

Context

For several years, the Yèvre-Auron basin has been faced with problems in terms of the quantity and quality of its ground- and surface water resources.

The pressure exerted on the resources by various uses over the past 50 years, combined with the vulnerability of the resources, has led to a deterioration in water quality and aggravated the dry-weather situation.

As part of work to draw up a water development and management scheme (SAGE) for the Yèvre-Auron basin, the local water committee wished

to assess the feasibility of setting up a system for managing the quantity of water abstracted for agricultural use. This involves setting quotas depending on the capacity of the resources. The basis of sound management, these quotas can be adjusted according to seasonal changes in water resources.

Description

The aims of this study were:

- ◆ to provide the local committee with all the information required for quantity-based management of water resources in the area covered by the SAGE;

- ◆ to make a detailed assessment of knowledge on the state of the resources in the basin and on the quantities abstracted for the needs of the various uses;
- ◆ to describe the hydrogeological operation of the basin, in particular the relations existing between the aquifer and rivers;
- ◆ to propose target discharges in the rivers and determine a theoretically exploitable quantity for achieving these targets;
- ◆ to propose various possible quantity-based management systems for irrigation in light of the above.

SETS/SZR/ebd/0306