

Spain



The Tagus river

The river Tagus is the longest river on the Iberian Peninsula and the third with regards to total contributing area and in amount of water carried while its basin is the most populated one. The volume of water that provides to other basins is a concern, since the Tagus is the one that provides the largest share to other basins. The Tagus basin is the most regulated one. Historically, two groups of users have been in conflict over **water use** in the Tagus basin: the urban water supply companies and the irrigators.

Water management is always ultimately dependent of the **Basin Authorities** which take decisions in **collective bodies**. They develop contingency plans with **three components that rely on DSS**:

- Definition of the triggers of the contingency actions: monitoring of key indicators that are based both in observational data and on modelled data by DSS;
- Evaluation of possible contingency actions: scenario evaluation based DSS, such as the Aquatools set of models;
- Implementation of the contingency plans: formulation of the water management plans and includes DSS that incorporate policy aspects.

This process is also followed by the main local water supply systems while the Reservoir Release Commissions are responsible for the continuous management of reservoirs.

Under severe scarcity conditions, a Permanent Committee is appointed to manage the situation. As in any other River Basin Authority, the planning process is exposed to public scrutiny. Individuals and social or political groups can make allegations that affect the planners' decisions as in the Tagus Basin where the Office of Planning generates and analyses simple scenarios.



DSS tools and approaches in Spain

As described in this leaflet, Decision Support Systems tools and approaches relevant to water management are developed and used at two levels in Spain:

- *for indicator development and monitoring*
- *for contingency planning.*

As for the first point, precipitation and stream flow data series are integrated thanks to the Sacramento model, which reproduces streamflow from rainfall observations. The synthetic calibrated time series are then used to compute operational indicators that characterize the hydrological conditions of the basin.

Keywords: DSS, River Basin Agency, Operational Management

Further readings: See the NOSTRUM-DSS Spanish National Report, available at <http://www.nostrum-dss.eu>
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