

# PRB ACTIVITY REPORT

## PRB: DUERO

<b>WORKING GROUP:</b>	D – Reporting
<b>ACTIVITY:</b>	WFD-Duero

### 1. Description of the activity

The current activity aims the implementation of an information system for the Duero river basin to store the information generated for the article 5 reports. The application not only collects data reported, but also the relevant information related to it.

The tool will make easier to prepare the information in order to report it to WISE.

The project is carried out by Duero river basin. This basin did not have any specific information system during the preparation of the article 5 reports, which has the advantage of starting from scratch. This will make easier to comply with the WFD requirements, WISE implementation and INSPIRE principles.

The project is intended to have three phases. In each of it, the different functionalities will be implemented:

1. WFD-Duero data model will be deployed to contain the information related to the characteristics of the river basin district specified in article 5. It will be a two layers application with a client and a server answering requests.
2. A Web application will be implemented with similar operation the previous one but consisting on Web formularies for the visualization and edition of the tabular information, and also for the visualization and selection of geographic information. Therefore, it will only require a web browser.
3. The data model will be improved to store information on the environmental impact of human activity, the economic analysis of water use and the monitoring networks.

WFD-Duero will make easier the creation of a future SDI-Duero node that will collect information from the database and will publish it to the Web through standard services.

### 2. PRB activity vs. status of national implementation

At a national level, the information system will be able to communicate to the one developed by the Ministry of Environment through standard interfaces. This is a must since it is the Member State the one that will report to the European Commission for all the Spanish river basins. The river basin authority for Duero river and the Ministry are continuously in contact to make sure of this.

### 3. Main results achieved in 2005

The results for 2005 are the development of the first phase of WFD-Duero to store the information needed for the article 5 of the WFD. Figure 1 shows the architecture of the information system. As a summary, the information system has the following features:

- Spatial viewer.
- Tabular data editor.
- Ground water bodies report.
- User identification

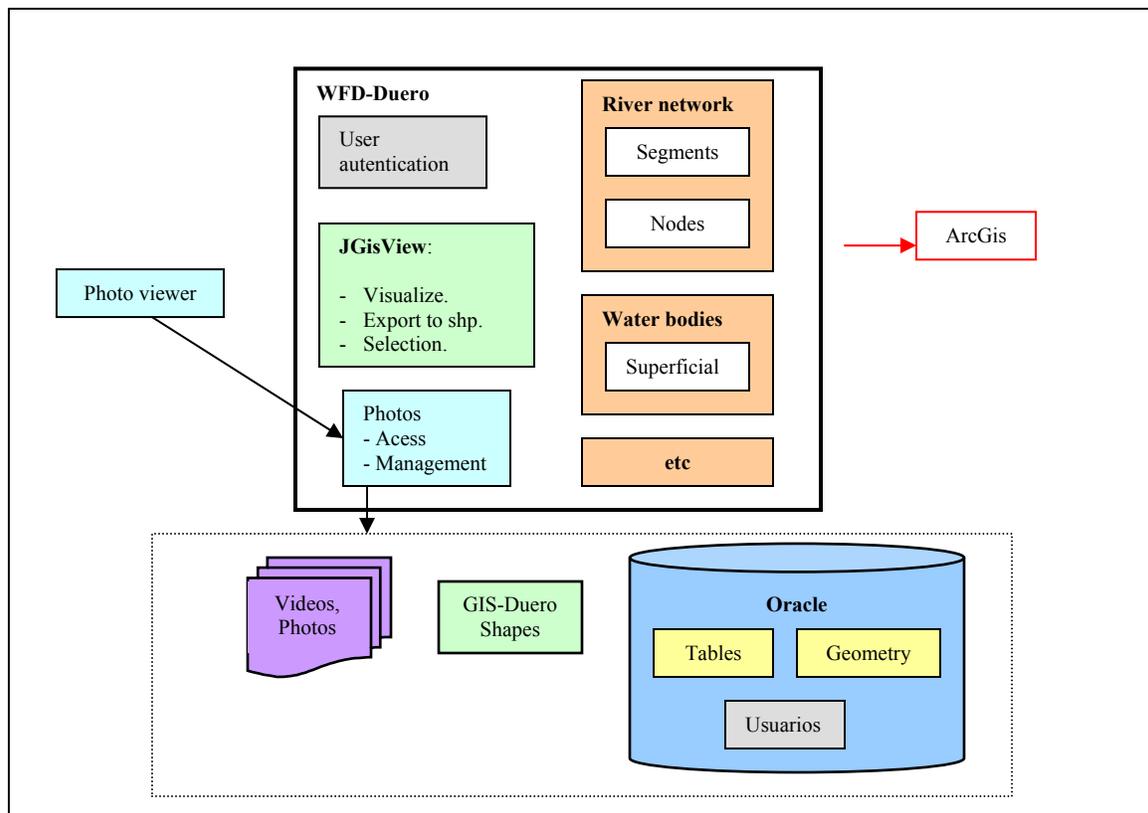
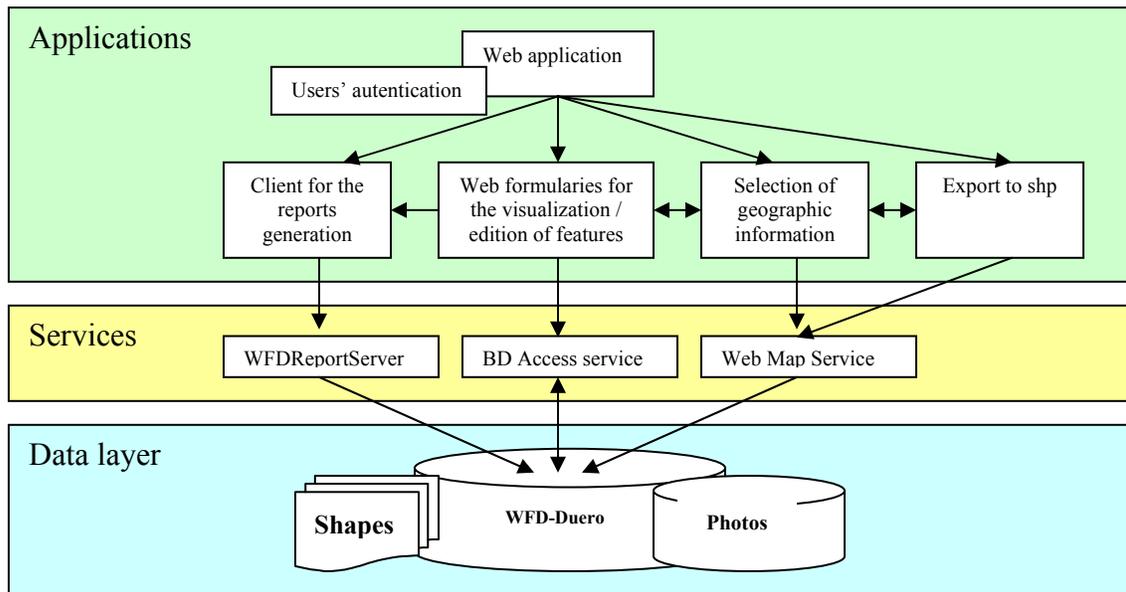


Figure 1: Architecture of WDF-Duero.

### 4. Activity follow up in 2006

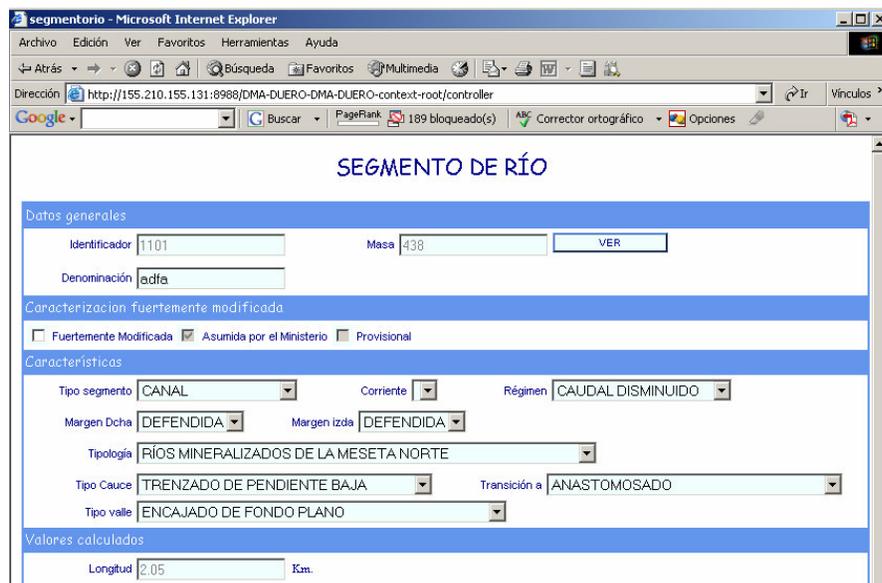
The objectives for 2006 are focused on the phase 2 of the implementation of the tool. The architecture will be adapted to access the application through the web. The diagram in Figure 2 shows the three layer implementation.

The new application allows, through the formulary; accessing the alphanumeric data by selecting an item in the map; exporting the layer to shape file format; using usual SIG tools, such as zoom, pane, distance measures, etc.); and visualizing and editing segment rivers, lakes, water bodies, photos, etc.



**Figure 2:** High level architecture diagram for the information system

The tool will also be improved by improvement of the data model by including environmental impact of human activity, the economic analysis of water use and the monitoring networks, etc. Figure 3 shows the general overview of the Web application.



**Figure 3:** Prototype for WFD-Duero through Web.

## 5. Others

To find out more information about the activities mentioned, it is possible to visit the Web site maintained by the Duero river basin authority (<http://www.chduero.es>).