

Cooperative WebGIS interactive information systems for water resources data management

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Abstract The dissemination and management of water related data using web-based information systems is a promising technological approach for sharing knowledge both with water users and the general public. These synchronous information systems facilitate spatial data and descriptive information sharing over the cloud and are accessible through common web browsers. The data harmonization is based on standards satisfying common data formats and transmission protocols. In this paper, two cooperative web-based information systems are described. The first one serves spatially distributed and descriptive information of national databases related to transboundary aquifers of the African continent. The second is a holistic information system for providing near real time alerts of flood events for the Greek part of the Strymon transboundary river basin. In both cases, all the included data, as well as metadata and auxiliary information, are available to the stakeholders involved and they satisfy interoperability requirements.

Key words WebGIS; cooperative information systems; transboundary aquifers; Africa; transboundary river basin; Strymon River; Greece