Application of GIS and database technologies for water resource management

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ABSTRACT

Sustainable management of water resources and planning for future water supply systems are dependent on large amounts of spatially distributed data. This can only be efficiently supported if the data are stored inside a database and organised appropriately for the various predicted purposes. Using new object-orientated databases, GIS software and programming languages, it is now possible to organise the required environmental data for water resource planning and management. Such a data support system has been developed by the authors, and is now used by the water supply company VO-KA in Ljubljana, Slovenia. A data system connects all important data arrays for monitoring the environmental parameters that are important to making further decisions on the planning and development of water supply systems.