



DSS of Seversky Donets River Water Management developed in MikeBasin Package

A. Zeiliger (1), A. Buber (2), O. Ermolaeva (1), and M. Troshina (2)

(1) Geo- and Hydroinformatics Center, Moscow State University of Environmental Engineering, Russia (azeiliger@mail.ru),

(2) The All Russian Research Institute Hydraulics and Land Reclamation named after A. N. Kostikov, Russia (bubera@rol.ru)

Nowadays a conventional decision making is based on the use of decision support system (DSS) on the base of hydroinformatics tool packages. This contribution is for the intention to describe a model of decision support system to be used for testing in real decision making for the water management of Seversky Donets transboundary River between Russia and Ukraine.

This river is a tributary of the Don River is 650 miles (1,050 km) long and drains a basin of 100,000 square km). Rising in the Central Russian Upland, it flows south past Belgorod, Russia; enters Ukraine and passes to the east of Kharkiv; swings southeastward and eventually reenters Russia; and then turns south to join the Don below Konstantinovsk.

The DSS is developed in the frame of the Tempus 23260 DNEPR academic project collaboration between Moscow State University of Environmental Engineering (Russia), The All Russian Research Institute Hydraulics and Land Reclamation named after A. N. Kostikov and Seversky Donets Water Management Office (Ukraine). This DSS is intended to be used as an educational tool for water professional training in water using management. It is based on advanced software technology integrated in MikeBasin (DHI) package. This DSS allows for simulating integrated water management problems like water demand approval for water scarce years, flooding protection, water quality by dilution of used water removed into river by water stored in water reservoir etc. To meet some requirement of the target application the real monitored for several years data was used for model verification.

Keywords: DSS, integrated water management, education