

Water Resource Associates

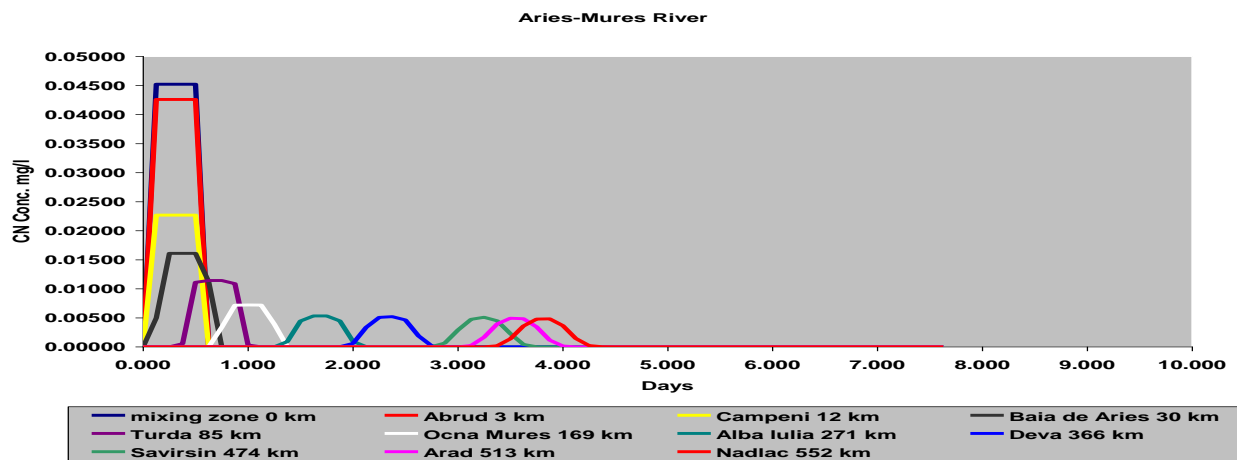
A network of consultants in hydraulics, hydrology, groundwater & environmental issues

Project title: Modelling Dispersion in the Aries – Mures River System, Romania

Summary: Development and application of a new model DISPRIN to the Aries-Mures River system in Romania.

Client: Romanian Government	Financed by: Romania
Period of assignment: 2006	Location: Transylvania
Project Value: £15,000	WRA services: £15,000
In co-operation with:	

Background: Mining in the Transylvania region of Romania is a major issue now the Romania has joined the EU. Old mines going back to pre-Roman times have been polluting the rivers for over 2000years. Moreover there is a desire to reopen and develop the mines to both clean up the polluting discharges and extract metals to boost the local economy. WRA has undertaken an extensive study of the Aries and Mures River systems in Transylvania in Northern Romania where an old mine is having a major impact on river water quality. A new model DISPRIN has been developed to simulate dispersion processes in the River System. The model takes into account dispersion, mixing, dilution and decay processes affecting discharges. The model has been applied to the Mures River systems to assess impacts of accidental dam or mine releases on water quality downstream.



Scope of work by Water Resource Associates Ltd Development of DISPRIN model to simulate the dispersion of pollutants along a river system. The model has been applied to assess the accidental discharge of pollutants in the Mures River System

Results--Report to Romanian Government and paper by Chapra, S. & Whitehead, P. G. 2009 Modelling impacts of pollution in river systems: a new dispersion model and a case study of mine discharges in the Abrud, Aries and Mures River System in Transylvania, Romania. Hydrol. Res. 40(2–3), 306–322.

Project number 274

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