Geophysical Research Abstracts,
Vol. 10, EGU2008-A-05208, 2008
SRef-ID: 1607-7962/gra/EGU2008-A-05208
EGU General Assembly 2008

Proposal for postulation and implementation of the freshwater monitoring system based on WFD principles in the Vojvodina region, Serbia

S.B. Marković (1), S. Krstić (2), Z. Svičev (3), F.F. Gaál (4), D. Stojanović (3)

(1) Chair of Physical Geography, Faculty of Sciences, University of Novi Sad, Trg Dositeja Obradovića 3, 21000 Novi Sad, Serbia, (2) Institute of Biology, Faculty of Natural Sciences, Skopje, Macedonia, (3) Department of Biology and Ecology, Faculty of Sciences, University of Novi Sad, Trg Dositeja Obradovića 2, 21000 Novi Sad, Serbia, (4) Deparment of Chemistry, Faculty of Sciences, University of Novi Sad, Trg Dositeja Obradovića 3, 21000 Novi Sad, Serbia, (zbir@im.ns.ac.yu / Fax: +381 21 459 696 / Tel: +381 21 485 2837)

In Vojvodina region, Serbia the surveillance monitoring should be the starting point for gathering the needed informations on physicochemical, biological and hydromorphological elements (conditions) of all surface freshwater ecosystems (ground water resources, transitional or coastal waters are treated separately) for assigning the definition of a 'water body', detecting the ecosystems with 'high' or 'good' status, and those that are "at risk' or can be classified as "poor" or 'bad' quality water bodies.

The surveillance monitoring should be done on as much as possible wide range of parameters including all WFD mandatory elements, but also some specific parameters like algal toxins (cyanotoxins - toxins resulting from massive 'water blooms' by cyanobacteria, ichthyotoxins-massive development of dinophytes, etc.) or other organic or inorganic parameters/toxins that can originate either from intensive human activities or natural background emissions. This monitoring should also give information about the 'state change' of the specific ecosystems, as an opposite approach to 'spatial state classification', due to: a) specific 'state change' evolution of every ecosystem regarding delineation of natural and humanly introduced water quality change, and b) omitting the assigning of a 'reference site' for every water body what has been proven as a bottleneck in WFD implementation. This is done by gathering the historical data

where possible or/and via paleolimnological research.

It is used to provide information on which to base the establishment of a program of measures for the achievement of the environmental objectives and specific measures necessary to remedy the effects of accidental pollution. This approach is also used to provide information on which to base the establishment of a program of measures for the achievement of the environmental objectives and specific measures necessary to remedy the effects of accidental pollution. As pointed in the results, the surface water ecosystems in Vojvodina are under rapid and forced eutrophication in the past 25 years. Monitoring based on WFD principles should also enable objectives and specific measures to mitigate and remedy the effects of prolonged cyanobacterial 'blooms'.

ACKNOWLEDGEMENT: *The authors acknowledge financial support of the European Community allotted by the European Agency for Reconstruction through the Ministry of International Economic Relations of the Republic of Serbia within the Neighborhood Programme Hungary-Serbia (Action entitled "Regional Water Resources Investigations in the Scope of Sustainable Development", Grant No.04SER02/01/009).*