



## **Application of theoretical and practical knowledge in the process of integrated water management in Bulgaria**

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Since Bulgaria has adopted the Water Framework Directive (WFD), it has exerted great efforts to follow the EC recommendations and to meet the relative requirements for legislation and institutions in the country. As a result, considerable progress has been made in the field of Integrated Water Resource Management (IWRM). With regard to the implementation of the WFD, the fundamental laws/acts and regulations have already been discussed and passed. All that remains outstanding is their practical implementation. The process of composing River Basin Management Plans was started parallel with the legal and institutional activities. A number of projects concerned with IWRM and funded predominantly by foreign organizations have also been carried out. All historical and recent information was collected and analyzed and the River Basins were characterized. Different issues and problems were recognized, data gaps were specified, the main water quality objectives for most of the rivers were formulated and initial actions for water use and protection were started. Some results are presented in this paper from a survey carried out to determine conventional instruments used for water management within the responsible governing institutions and organizations of the country. An analysis is made of the methodology and application of technical information and modeling as an integrated tool for developing the “Preliminary Iskar Basin Management Plan”. Special emphasis is put on monitoring as an essential link in IWRM. Another reason for focusing on this example is the need for application of monitoring, modeling and science taking into account the variability of aquatic systems within which monitoring programs are carried out. On the basis of this study some recommendations are synthesized into an important management instrument that will assist the implementation of theoretical knowledge for improving

water monitoring systems. Some general directions for assisting the implementation of modern theoretical methods and tools in the domain of water management are also indicated. This study was carried out using the methodological approach developed by the Integrative Water Management Pilot Study of the NATO CCMS (Committee on the Challenges of a Modern Society).