

## **New monitoring technique for rapid investigation of nitrates pollution in aquatic systems**

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**Abstract** *In situ* measurement with a portable multi-parameter sonde was used in the framework of the Cleanwater project – LIFE09 ENV/RO/000612, for a rapid investigation of nitrates pollution in Barlad River basin, in rivers and domestic wells, in addition to laboratory measurements. Water samples were analysed in an accredited laboratory for water monitoring, such as the Vaslui Water Management System from Barlad basin. Sampling campaigns were performed monthly in the period April–November 2011. In order to find the main factors that influence the measurements, the behaviour of equipment was analysed in rivers, for different water sampling points along the river and the cross-sections, taking into account the water level, the turbulence, the vegetation and the obstacles along the river. Results proved the multiparameter sonde as a useful device for rapidly monitoring spatial distributions or temporal trends of nitrates or chlorophyll *a*, and detecting sudden changes in surface and groundwater quality.

**Key words** portable sonde, nitrates, monitoring, rivers