Suspended sediment monitoring using water quality probe – initial results

Marina Babić Mladenović (1), Nevena Cvijanović (1), and Mira Ivljanin (2)
(1) Jaroslav Černi Institute for the Development of Water Resources, Belgrade, Serbia (headoffice@jcerni.co.rs), (2) Republic Hydrometeorological Service of Serbia, Belgrade, Serbia (office@hidmet.gov.rs)

One of the obligations defined by the Protocol on the Sediment Management to the Framework Agreement for the Sava River Basin (SRB) is to establish a coordinated system for the suspended sediment monitoring. Turbidity meters are proposed for SRB monitoring, as widely used all around the world in sediment monitoring programs. It is expected that they can provide reliable data where the point measurements can be correlated to the river’s mean cross section concentration value.

In June 2017, a water quality probe was installed on the bank of the Sava river in Sremska Mitrovica, Serbia and the monitoring began. At the same time, point sediment sampling and cross sectional measurements started, as a ground for establishment of correlation between point suspended sediment concentration (SSC) and turbidity, and moreover between point and cross-sectional average values. These parallel investigations will continue until the above mentioned correlations became reliable and cover the whole range of flows. This paper presents initial results of SSC monitoring on the large river like Sava, based on measurements done in 2017.