Geophysical Research Abstracts, Vol. 7, 02757, 2005
SRef-ID: 1607-7962/gra/EGU05-A-02757

Estimation of Suspended Matter Loads in smaller lowland rivers

C. Hanisch and **L. Zerling**

Saxon Academy of Sciences at Leipzig, Leipzig, Germany (zerling@saw-leipzig.de)

In smaller rivers a time equidistant taking of water samples is usual. The annual suspended matter (SPM) load is highly determinate by some flood events. Therefore the sampling of SPM should by carried out adjusted to the discharge parameters and monitoring sequences should not be planned. In larger rivers, observed by continuous measurement of turbidity the good correlation between SPM content and turbidity makes it possible to valuate the load.

Sampling during three years by different discharge scenarios forms the basis of data for an estimation method for SPM content by the help of the discharge course of the middle day drain. With this method it is able to calculate the daily SPM load. The yearly SPM loads determined as described above are compared to SPM loads which were estimated from the calculation of middle day SPM loads on the basis of random samples.

Using the load differences between two sampling points along the river course, it is possible to calculate the sedimentation or erosion rate in reservoirs and retention areas also for time periods with low sampling density. That way development trends can be completed.