Hydrol. Earth Syst. Sci. Discuss., 5, S2393–S2394, 2009

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Interactive Comment

Interactive comment on "Landscape elements and river chemistry as affected by river regulation – a 3-D perspective" by E. Smedberg et al.

Anonymous Referee #2

Received and published: 22 January 2009

The study presents an investigation about the specific discharge and the steepness of headwaters jointly for the determination of "hot-spot"; of river loading of dissolved constituents in a vast area of Northern Sweden. This analysis has been made using DEMs with a fixed threshold area. At the spatial resolution of 250 m, 3D maps of vegetation and soil have been obtained for the characterization of various covered land classes (wetland, forest-deciduous, coniferous and mixed- herbaceous area, cultivated and so on..). The analysis is interesting, however none additional information is furnished about the effect of the coarse-graining elimination of numerous streams and maybe a part of land covers with dimension less of 250 m. This aspect is very important because can affect the precision of the "hot-spot"; of the river loading of dis-





solved constituents. This point needs to be clarified, especially in order to compare with eventually studies in which other threshold coarse-graining analysis is performed. Once this point is clarified, the paper is suitable for publication on Hydrology and Earth System Science Discussion.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 5, 3355, 2008.

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