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Drinking Water Engineering and Science Discussions

Interactive comment on "Water quality and treatment of river bank filtrate" by W. W. J. M. de Vet et al.

Anonymous Referee #1

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General comments

The paper is interesting and well written. Using a specific river bank filtration site influenced by polder water infiltration as an example, it gives a good overview on the occurrence of redox-sensitive macro pollutants and their application as indicators for the redox state of the waters and as tool for characterizing the mixing conditions. The site characterization is completed with a discussion about the most efficient way to remove ammonia, methane, iron, and manganese during drinking water production.

Specific comments

Introduction: It would be interesting to learn something about the percentage of RBF in water supply in the Netherlands. Page 129, line 16: In what way does residence

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time variation contribute to the reduction of micropollutant concentrations? Page 130, line 2: Please define the ORP! Do you mean the redox potential? Page 130, line 3: The hardness doesn't generally increase in RBF. It depends on the aquifer material. Page 136, line 24: The rate of iron or manganese oxidation is mostly described to be proportional to the OH- concentration squared.

Technical corrections

Table 1: Ammonia: The second reaction equation should start on a new line. Manganese: The number 1 in the reaction equation should be omitted.

Table 2: Table caption: It is better to specify the distribution coefficients by adding "water/air". Oxygen is missing in the caption.

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