

Interactive comment on “Riverbank filtration for treatment of highly turbid Colombian rivers” by Juan Pablo Gutiérrez et al.

Anonymous Referee #2

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Riverbank filtration for treatment of highly turbid Colombian rivers Manuscript number: DWES-2017-10

Work on riverbank filtration (RBF) for treatment of highly turbid water is interesting as reports have shown that RBF can be used as an alternative pre-treatment step in order to reduce the use of chemicals. The authors report on considerable poor quality of many Colombian surface water and suggest RBF as an alternative treatment process. This can be good for large scale treatment not only for Colombian surface waters but also highly turbid water from other countries. The review is well written and informative. Having said that, I have the following comments for the authors. Page 4, line 4: Please explain the role of the schmutzdecke layer in biological treatment? Section 4: Please highlight the potential challenges in the application of RBF in conventional surface water treatment plants in Colombia. With regards to construction, maintenance

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and operational costs, would the use of RBF as pretreatment be cost-effective over a long term? What is the competitiveness of RBF to slow sand filtration (SSF)? Please highlight the limitations of the current systems used in treatment of surface water and suggest which treatment steps RBF can replace (or eliminate) if incorporated in the current water purification plants. What would be the willingness (acceptance) of surface water treatment plants to incorporate RBF in their current treatment chain taking into account cost-effectiveness and amount of space required compared to membrane bioreactor (MBR)?

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