

## ***Interactive comment on “Modeling subsurface transport in extensive glaciofluvial and littoral sediments to remediate a municipal drinking water aquifer” by M. Bergvall et al.***

**P. Grathwohl (Referee)**

grathwohl@uni-tuebingen.de

Received and published: 20 June 2011

The authors provide a very well written paper on long term pesticide contamination of valuable groundwater resources in eskers, which are wide spread in recently glaciated regions. Using a coupled vadose zone – groundwater model optimized remediation scenarios are compared to natural decline of concentrations. Sensitivity analysis showed that hydraulic conductivity distribution is of major influence. A very important finding is, that macropore transport is of minor importance if the vadose zone is thick and coarse textured materials prevail. Surprising was the fact that the aquifer

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper

would be clean already in four years if extraction wells are placed according to the optimization of the model. Considering the uncertainties in the model parameters and the field measurements of the pesticides it might be more appropriate to give ranges of time periods which also account for the uncertainties in the prediction. Considering this minor comment and the detailed list of comments already provided in the discussion I recommend to accept the revised paper.

---

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 8, 1729, 2011.

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper