

Dear reviewer, dear Jan Wienhöfer,

We thank you for your valuable feedback, the careful review of our manuscript, and the useful comments. We have used these to improve the manuscript. We respond to each comment below (original comment in black font, our response in blue font).

The authors have adequately addressed almost all of the reviewers' comments, and revised their manuscript accordingly. I suggest publication of the manuscript after addressing the remaining points below.

Thank you for this positive assessment.

Page 7, line 194 (maximum of 50 mm/h) – what does that addition in parentheses mean regarding the 10-years rain, which is about 39 mm/h?

Thank you for this comment. The parenthesis '(maximum of 50 mm/h)' meant that the maximum rainfall intensity per hour based on 38 years of hourly precipitation data from the Erlenhöhe meteorological station was 50 mm/h. **We now write this explicitly '(maximum rainfall intensity recorded: 50 mm/h)' in the revised manuscript.**

Page 19, Table 6: Unfortunately, it is still not fully clear what is shown here exactly. If the recovery is expressed cumulatively, as the caption suggests, why does the recovery for Uranine in OF at the clearing drop from 26 % to 17 %?

Thank you for this comment. The recovery (in % of applied mass) of, for example, Uranine in OF in the clearing is less after 24 hours compared to 163 minutes because the total applied tracer mass increased after 163 minutes when the second tracer line was added to the plot.

We have revised the caption of Table 6 accordingly:

Table 6: Cumulative tracer recovery as percentage of the applied mass for each tracer used in the experiments for the plot in the clearing and the plot in the grassland. For the plot in the clearing, the second lines of NaCl and uranine were applied 163 minutes after the first applications. Therefore, the values reported for 100 and 163 minutes include only the recovery of the first tracer application, while the values reported for 24 hours include the recovery from both applications. Because the total applied mass increased with the second application and the recovery for the second line (applied further upslope) was less than for the first line, the cumulative recovery after 24 hours expressed as a percentage of the total applied mass is less than after 163 minutes. Some of the tracer applied to the upper parts of the plot in the clearing likely left via an outflow on the side of the plot (see section 4.4). This affected the recovery of NaCl 2, uranine 2, NaBr, and deuterium-labelled water that were applied upslope from this outflow. BDL stands for "below detection limit".

Page 27, Line 737: The data cannot be accessed using the doi “10.16904/envidat.685”, only a loading screen is shown (tested on 26 Sep 2025). The doi resolves to <https://envidat.ch/#/metadata/flow-and-tracer-time-series-for-overland-flow-and-topsoil-interflow-during-rainf> [!]. Is perhaps something missing here? Please make sure that the data can be accessed.

Thank you for this comment. Indeed, it may appear that the letters “all” are missing from “rainfall” but the url is correct (and automatically generated based on a maximum number of characters). Also, the website was under maintenance with the following message:

‘Maintenance Mode

We are currently upgrading EnviDat backend. Thank you for your understanding and patience during this time. EnviDat can be accessed in read-only mode. Data download, upload and user data management functionalities will be disabled.’ (30.09.2025)

This is why you might not have been able to access the data previously. **We now retested the link and everything seems to be correct and working. (08.10.2025)**