

## Reply to reviewer 2:

Tetzlaff et al. have posted a strong dataset with hydrologic and isotopic data from several compartments representing blue water and green water from a mixed land use catchment in northeast Germany. The dataset is strong and useful – I could not benefit fully due to problems I had accessing the metadata.

\*\* thank you for the positive comments. Many apologies though that you couldn't access the file (more detailed response below). However, we double checked and we can download the metadata 622 und 623 (so hopefully this was just a temporary problem or unfortunately related to the PC of the reviewer?). If required, and the reviewer still has issues, we would appreciate it if one could report the error message to us and/or to the support for the FRED repository at [fred@igb-berlin.de](mailto:fred@igb-berlin.de).

While the data quality appeared to be strong they could be better organized and made to be more intuitive to follow with better column labels. Even if explanations are present in the metadata, more intuitive headings could avoid making the search. Reviewer 1 did a thorough job of noting these instances, so some of my comments may overlap. I've divided my comments onto editorial comments on the text followed by comments pertaining to the data.

\*\* yes, we will substantially revise and correct the data file (indeed, we have done this already and will upload the final, revised data file version once all reviewer comments, and potential comments by the editor are addressed and incorporated).

### Editorial suggestions:

General: This is described as a 2-year dataset but there were references to groundwater levels and stream discharge from 20 and even 40 years ago. The text made no mention that the older data would be posted, but they are there on the website. It would be good to mention up front that you focused on the richer, newer data, but these “historical perspective” data are also posted, and particularly with the unusual drought during these two years, the older hydrologic data provide nice context.

Line 22. Suggest to delete “though.”

\*\* will be corrected.

Line 23. Parallel construction: “we” should consistently be within or outside of each numbered clause

\*\* will be corrected.

Line 82. Drop “s” from “lowlands.”

\*\* will be corrected.

Line 92. Fix “data of two years of data....”

\*\* will be corrected.

Line 155. Suggest either ‘Measurements were made’ or ‘Throughfall was collected.’

\*\* will be corrected to “Throughfall was collected...”

Line 156. 10-m

\*\* will be corrected.

Line 160. “18 sensors”

\*\* will be corrected.

Line 170-171. Suggest “Water level measurements were established...”

\*\* will be corrected as suggested

Line 210. Spell check: “being”

\*\* will be corrected (thanks for spotting!)

Line 226. Delete comma after “including”

\*\* will be corrected

Line 236. Change “is” to “in”

\*\* will be corrected

Fig. 2b. Start of record, July 2018 – are these good data? Throughfall >>rainfall only for this short period?

\*\* Throughfall was collected weekly from the throughfall samplers starting in July 2018. Throughfall sampling continued weekly into the summer of 2020. Respectfully: the authors are not clear why the reviewer believes that this data is suspect as there were five (5) throughfall samplers for comparison throughout the Forest A site.

Line 243-244. more sensitive = greater?

\*\* will be corrected (as also commented by reviewer 1).

Line 253. Consider simplifying sentence by deleting “despite” and “this”

\*\* great suggestion - will be corrected

Line 278. Variation damped? (not samples)

\*\* will be corrected to “though in deeper soil, the isotopic signal was more damped”

Line 301. data are

\*\* will be corrected

Line 310. Spell check: “complementary”

\*\* will be corrected

Data:

Like Reviewer 1, I had some confusion over the data versions. My comments were originally on the file in 623, but then I saw the author response to Reviewer 1 that site 622 had the revised dataset. The two versions looked the same to me, but if my comments are off it could be a version confusion issue.

\*\* this was related to the doi. However, by now we have corrected the file and will upload the new file as soon as all reviewer and editor comments are addressed.

Unlike Reviewer 1 I could not download any metadata. Both the .eml and.xml file downloads were blocked.

\*\* We double checked and we can download the metadata 622 und 623 (so hopefully this was just a temporary problem or unfortunately related to the PC of the reviewer?). If required, and the reviewer still has issues, we would appreciate it if one could report the error message to us and/or to the support for the FRED repository at [fred@igb-berlin.de](mailto:fred@igb-berlin.de) .

The General “readme” page at Site 622 says all sample times are CET, but makes no mention of accommodations (or not) for the summer time change. This may be clarified elsewhere but should be stated here.

\*\* The time in all recorded date-time reflects the local daylight saving time corrections. This has been updated in the readme of the datasheet.

In the Hasenfelde Met\_data tab, each parameter has an average, max, and min value for each hour (nice!), but the wind speed and direction are not specified. Are these averages or instantaneous values on the hour?

\*\* The wind speed and direction are aggregated as data averaged over the hour. A note has been added to the readme in the data sheet for clarification.

The precipitation isotope tab states (in readme text in upper left) that aside from the daily Hasenfelde site, other sites might be event or weekly – is there any indication of which samples are weekly? This applies to Throughfall as well, its tab states throughfall was collected on the same schedule as precip.

\*\* As per comments from Review 1, this has been clarified in the readme sheet in the datasheet.

On the Discharge tab, for Dennitz Mill, using the rating curve in cell F5, I can’t reproduce the flows from the water levels.

\*\* This has been clarified in the readme sheet. The rating curve shown in the sheet was established in 2007 after the relocation of the pressure gauge. The relocation was slightly downstream of the original location mandating a reestablishment of the rating curve. The original rating curve (2001-2007) has been added to the readme sheet.

In the Discharge\_Isotope tab, the readme upper left says sample type is specified in site name but it is actually in the Type: field in the header for each site. And in this field (Row2), “Grab” in grab sample is misspelled.

\*\* This has been corrected (typo and description).

Groundwater tab: “Div/0 error in cells for GW4, March 2019. I don’t understand readme note in upper left corner about only showing data for 2018, as all sites go to 2020. Duplicate identical data columns could be removed.

\*\* The readme description has been corrected and all missing data (Div/0) has been corrected with NaN.

Forest A and Grass A SMC tabs – These tabs are hard to decipher – headers are minimal, sites are overly abbreviated where there is ample space to expand, and there are multiple columns with identical labels. Even if these are described in metadata elsewhere there should be more information directly in the tab to help decipher what is being presented. Is there a difference between Soil Moisture and Average Soil Moisture?

\*\* These tabs have been updated for clarification. Headers have been improved for clarity, with an additional description of headers in the readme file. This includes the description of average and non-averaged soil moisture.

Forest A and Grass A Isotope tabs – Reporting of units in column headings is uneven, for instance columns J and K, grav\_soil\_moist (no units given) and water content g (just g? Not per unit volume?)

\*\* the units have been updated with some further explanation added to the readme sheet.

Vegetation\_isotopes tab, row 21 has data beyond where headers stop.

\*\* Corrected