

Interactive comment on “The CH-IRP data set: a decade of fortnightly data of $\delta^2\text{H}$ and $\delta^{18}\text{O}$ in streamflow and precipitation in Switzerland” by Maria Staudinger et al.

Anonymous Referee #2

Received and published: 26 August 2020

The presented data collection is a unique and valuable contribution for the hydrology community. The accompanying text is comprehensible. However, there are essential information missing (rainfall and streamflow data, basin boundaries) to make it a complete data collection that is usable for the community. It should be in the interest of the authors to provide a complete collection, as it will increase the impact of the published data and reduce misinterpretation.

Rainfall data – to make the dataset comprehensive you need to supply the rainfall amounts (e.g. as basin weighted averages), the link provided to Referee 1 is not sufficient at all, it only leads to a german webpage (not available in english). Even

C1

if anyone would be able to go through the registration process it is not at all clear which weather stations are required to obtain data for the specific basins. I guess not each of your basins has a weather station? And the names of corresponding weather stations might not be the names of the basins. I understand that certain institutions will not allow the publication of raw data, but I am convinced that Meteoswiss will allow publication of the data (especially when providing processed basin weighted averages) as part of a scientific publication (see section “how data may be used” <https://gate.meteoswiss.ch/idaweb/more.do?language=en>)

Streamflow data – Streamflow timeseries are essential for multiple applications, and I would highly recommend to add them to the data collection. In any case, the information that is currently provided is not sufficient. It is not clear where one can obtain the streamflow timeseries. In line 207 you mention Swiss FOEN as a data source (for streamflow and basin boundaries), however the stations ROE, ERL, VOG, LUE, AAM are not existing in the public dataset (<https://www.hydrodaten.admin.ch/en/stations-and-data.html>). GUE has a different FOEN ID and coordinates. You need to at least provide detailed information where one can get the data for all basins, but as outlined above I think providing streamflow timeseries would be a valuable addition to the present data collection.

Basin boundaries – It would be great if you could provide basin boundaries for all basins, as for most applications these are needed to clip other data sources. E.g. without providing rainfall data, missing basin boundaries are another obstacle for interested users. It's clear that you have them available and I do not see a reason why you should not provide them.

Minor Comments:

Line 80 - replace “stemming from” with sth like “collected in”

Line 141 – In my understanding, the flow percentile that you describe is 0.05, terms are mixed up, I guess you mean the exceedance probability of 0.95 or the percentile of

C2

0.05

Figure 1: increase size of scale and basin IDs

Figure 8: there is a 1 on top of January

Interactive comment on Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2020-27>, 2020.