

Interactive comment on “An Arctic watershed observatory at Lake Peters, Alaska: weather-glacier-river-lake system data for 2015–2018” by Ellie Broadman et al.

Anonymous Referee #1

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Authors are commended for submitting a very polished manuscript. Before it can be accepted for publication in as-is form, they are advised to address the following minor concerns.

“ In Fig. 4, the three lines (in grey, black and red) should be explained. “ In section 3.3, it is described that TROLL was installed in a stage cage, which moved. Readers and potential users of the data will benefit if more discussion is added regarding how the use of the data can appropriately account for this movement. It is not clear from the provided database if the locations of the cage in different years are identified. “ Presentation of Section 4 is much appreciated, especially as it highlights the tracing of

C1

an event through the Lake Peters system. To this reviewer, the publication of data is supposed to spur/support other modeling and/or diagnostic research in the watershed. Hence, the authors are encouraged to add a (sub)section on the sufficiency of data set for hydrologic/hydraulic/water quality modeling and/or diagnostics of process interactions in the watershed. While this reviewer fully recognizes the challenges associated with collection of data in arctic watersheds, given the range of other data sets that are usually needed for modeling, it will be good for readers to recognize beforehand if the data set is “complete” to perform modeling/diagnostics. If the data set is lacking in this regard, please acknowledge the limitations and suggest ways for overcoming them. Furthermore, a discussion should be added about the possible science questions that can be answered using the presented data set, which will encourage data-use beyond the data collectors.

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C2