Earth Syst. Sci. Data Discuss., referee comment RC1
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Comment on essd-2022-179

Anonymous Referee #1

Referee comment on "A comprehensive geospatial database of nearly 100□000 reservoirs in China" by Chunqiao Song et al., Earth Syst. Sci. Data Discuss., https://doi.org/10.5194/essd-2022-179-RC1, 2022

The manuscript entitled ”A comprehensive geospatial database of nearly 100,000 reservoirs in China” proposes an improvement to the dam and reservoirs dataset by compiling existing global data and local inventories. The authors access the quality of their data and compare their data with the existing datasets, and they announce that their dataset shows great improvement and, in many respects, is better than others.

The topic of the manuscript is interesting and relevant to the earth science data community, as dam dataset are critical part of earth system science. Overall, this is a well-written manuscript.

I have a few comments about the accuracy assessment:

- I have concerns on the accuracy evaluation of their data (section 4.2). Line 338: does the random selection process is manual? In this section, I can not understand what accuracy means here. Do you mean area? Please provide more detail.
- For dataset comparison, you can not say improvements just based on more count, area, and storage. Does this data have better accuracy over other ones? Please try to show that. Overall the accuracy assessment is not clear, which directs an unclear description of their contribution.
- What is the normal elevation in table 1. Do you mean height? It is a little confusing.

- Do you have residence time? Without this information, it is really hard for use in hydrological modeling?