

Earth Syst. Sci. Data Discuss., referee comment RC2
<https://doi.org/10.5194/essd-2022-179-RC2>, 2022
© Author(s) 2022. This work is distributed under
the Creative Commons Attribution 4.0 License.

Comment on essd-2022-179

Dai Yamazaki (Referee)

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-RC2>, 2022

This manuscript describe the new dataset of most reservoirs in China (China Reservoir Dataset), including the development methodology and the characteristics of the dataset. As the reservoir is important for understanding the water resources and water risk, the constructed database is very useful for many hydrology and climate studies. The manuscript is well designed with clear explanations. I think it can be accepted after some small revisions.

L29: 979.62 Gt

I (personally) think "km³" is more common as the unit for reservoir storage.

L249: water inundation extent

How is the boundary of the reservoir and connecting rivers decided from remote-sensing water extent map? Please explain

L295: SMAPE

What "SMAPE" stands for? Please spell out.

P303. Figure 3.

Why can we observe some step-wise increase in storage capacity? Please explain. (I guess the effective digits of the storage capacity data, which extent is more continuous).

L326: smaller than 0.01km^2 are complete.

This should be "larger than 0.01km^2 ".

L349. The main causes of errors

For user's viewpoint, the size of the lakes errors are found is better to be provided. For example, if we know there is almost no error for lakes $>10\text{km}^2$, users can safely use the dataset for large-scale studies.

L376: YZR (and other abbreviation names)

I think you don't have to use abbreviations except for Figures and Tables in the main text. Using full name improves the readability.

L413: Figure 6.

Please add explanations that the description of the abbreviations is found in Table 3.