Earth Syst. Sci. Data Discuss., referee comment RC2
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Comment on essd-2021-36

Anonymous Referee #2

Referee comment on "A multi-source 120-year US flood database with a unified common format and public access" by Zhi Li et al., Earth Syst. Sci. Data Discuss., https://doi.org/10.5194/essd-2021-36-RC2, 2021

Review ESSD-2021-36 US Floods

Overall: Good effort, good compilation, good description, valuable to many users.

Colors of the source databases do not show up in Fig 1b, partly due to color selection and partly due to very low numbers from several sources Consider better ways to convey this info?

Somewhere, perhaps a table in an appendix, match the HUC4 individual codes to named river basins or flood regions?

Absence of any uncertainty estimates represents a substantial limitation. Authors focus, quantitatively, on numbers of events, but virtually every parameter - including location - listed in Table 2 exists within a substantial uncertainty range. Need expanded discussion of uncertainties! Which could lead to recommendations for reducing said uncertainties (e.g. formal record-keeping, systematic enhanced remote sensing, new guidance for citizen observors). Perhaps add an uncertaintly column to Table 2? Even on log scale, bars and trendlines in e.g. Figure 6 have substantial uncertainty? Most users listed by authors will want or need uncertainty information. How to reduce uncertainty going forward to better quantify trends?