Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2020-314-RC1, 2020 © Author(s) 2020. This work is distributed under the Creative Commons Attribution 4.0 License.



HESSD

Interactive comment

Interactive comment on "Comparison of published palaeoclimate records suitable for reconstructing annual to sub-decadal hydroclimatic variability in eastern Australia: implications for water resource management and planning" by Anna L. Flack et al.

## Anonymous Referee #1

Received and published: 27 July 2020

This paper provides very interesting results, and topic of the research is within the scope of this journal. The manuscript is well written and organized. Some minor revisions are recommended.

[General Comments]

1. P7, L135 The advantage of using "composite index" is a little unclear. We can understand that the composite index would give conservative estimate of wet/dry condition (as described in P16, L294), however, it is still unclear why composite index

Discussion paper



would be better rather than the use of "best-perform single palaeoclimate records". # no palaeoclimte records could be selected as "best-perform"(?)

2. P6, L131 "... uncertainty associated with palaeoclimate records ..." -> It would be better to describe (explain) a little more about uncertainty and/or accuracy (precision) of paleoclimate records, if possible. (which sources of uncertainty and how large/small uncertainties are expected, difference in precision between older records (-1000years) and recent (after 1900), ...) # The response to this comment is not mandatory, however, this information would be helpful # for reader's understanding of characteristics (limitation) of palaeoclimate records.

[Specific Comments]

1. P3, L85 "11 palaeoclimate records that were selected ..." -> How many "candidates" of palaeoclimate records were reviewed (in total) to select 11 palaeoclimate records?

2. P3, L92 "... however, two records with –4-5 year temporal resolution ..." –> How did you use (and composite) 4-5 years temporal resolution data with other annual resolution data? # ex. interpolated in annual resolution (?)

3. P6, L124 "... more than 20% above (below average) ..." -> How to set the "20%" as a threshold? # following to other past research (?)

4. P7, L135 "... majority of palaeoclimate records analyzed here agree were wet or dry ..." -> - "majority" means that if 6 of palaeoclimate records show the signal of wet/dry, the period is considered as wet/dry period. (?)

- Does the number of agreed palaeoclimate records (wet or dry, among 11 records) have any relationship with degree (severity) of wetness/dryness of the period?

5. P16, L316 "Based on annual rainfall ..." -> Which rainfall data was used to calculate averages for wettest, driest and middle input? # AWAP data (?)

Interactive comment

Printer-friendly version

Discussion paper



Interactive comment on Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2020-

314, 2020.

## HESSD

Interactive comment

Printer-friendly version

Discussion paper

