

Dear Reviewer 1,

We sincerely thank Reviewer 1 for their time, patience, and continued engagement with our manuscript. We greatly appreciate the reviewer's careful, detailed, and critical observations, which were instrumental in refining both clarity and presentation. Owing to this meticulous feedback, we believe the revised manuscript now meets a standard of excellence that is fully consistent with the high expectations of *Hydrology and Earth System Sciences*.

Below we provide a point-by-point response. All changes have been implemented in the revised manuscript (with tracked changes), and the relevant locations are indicated where possible.

Summary of main revisions implemented in response to Reviewer 1

- Major changes were made in sections 2.2 and 2.3 to more precisely describe the drought characteristics and the three-curve model.
- We incorporated the recommended WMO (2012) reference to support the discussion on SPI time scales and their hydrological meaning.
- We improved clarity and wording in the methodology (affected area definition, unclear sentence rephrasing) and corrected typographical issues.
- We strengthened cross-references to figures to guide readers (additional references to Fig. 1, Fig. 5, Fig. 6, and Fig. 8a at the requested locations).
- We reformatted Figure 3 into 3 rows to enhance readability.
- We combined paragraphs and removed redundant text in the Results section.
- We added additional literature references requested for BDM and flash drought.

We again thank the reviewer for the constructive feedback and for acknowledging the improved clarity of the revised manuscript. We believe that the additional refinements addressed all remaining minor issues and further strengthened the final presentation.

Sincerely,

Joao Dehon de Araujo Pontes Filho