

## Response to reviewers' comments

### *Manuscript number (HESS-2023-25)*

**Note: Below, the reviewers' comments are in red, our responses are in black; line numbers refer to the revised manuscript unless otherwise indicated; new text in the revised manuscript (marked version) is underlined.**

Line 90-91: The degree of.....stomatal controls, for example (Lowe et al., 2022). the sentence looks incomplete.

Thank you for your suggestion. To address your concern, we have restructured the sentence for clarity as follows:

"For example, the degree of transpiration in an ecosystem is tied to subsurface water available to plants, temperature, wind, light, and stomatal controls (Lowe et al., 2022)."

Line 65: Check spelling (ARTificial or Artificial)

Thank you for pointing this out. The term "ARTificial" is part of the official abbreviation for the model name, ARIES (ARTificial Intelligence for Environment & Sustainability), as written by the developers. To maintain consistency and adhere to the original naming convention, we have kept the name as it appears in the original source.

Line 65: check alphabet/spelling Co\$ting

Similar to the previous response, 'Co\$ting' is the official name of the model, as designated by its developers.

Improve the quality of Figure 5

Thank you for the suggestion. We have updated Figure 5 to improve its quality.

Conduct a thorough proofread to identify and address any remaining typographical or formatting errors.

Thank you for your suggestion. We have conducted a thorough proofreading of the manuscript to ensure that there are no typographical or formatting errors.

Finally, we thank the reviewer(s) again for their constructive feedback/comments, which have helped us to improve/strengthen the manuscript.