

Dear Reviewer RC2,

Thank you for your positive comments and constructive feedback on our manuscript. We appreciate both your thorough review and your valuable insights into how we can improve the clarity and detail of our work.

Below, we outline how we intend to address the key concerns raised in the next phase of the review:

- We agree on the necessity of providing clarity regarding the distinction between multi-hazards and compound events, as well as the extent to which research on compound events considers risk components such as vulnerability and exposure, beyond just the hazard itself. While research on compound events can encompass considerations of vulnerability and exposure, we will elaborate on the overarching distinction that compound events research specifically focuses on combinations of hydrometeorological hazards. This is in contrast to other hazards, such as geophysical and biological hazards, which may still be included in multi-hazard research.
- We are also happy to clarify that our review focuses on analysis of pairs or combinations of hydrometeorological hazards. However, it still includes other relevant work related to compound events research, such as the development of compound event frameworks and examples of compound weather and climate events within conceptual analysis. These 'Other' papers are included in this review to highlight the theoretical development of compound events science. They are thus included in the supplementary information 1 reference list as relevant papers to explore.
- We will address the two technical corrections identified by RC2 by making the necessary amendments.

We appreciate your insights and believe that these revisions will significantly strengthen the manuscript. Thank you once again for your time and expertise.

Best regards,

Lou (on behalf of the manuscript authorship team)

16th March 2025

