

28 August 2026

Reviewer: I have carefully checked the authors' responses to both reviewers and am pleased to recommend publication of the manuscript.

Reply: We would like to thank the reviewer again for his/her constructive comments, which helped improving the clarity and overall quality of the manuscript. We appreciate the positive assessment of our work and support for its publication.

Reviewer: A few minor corrections should be addressed in the final version. The authors are also encouraged to carefully proofread the manuscript throughout for consistency and grammatical accuracy.

Reply: We thank the reviewer for this suggestion. We have carefully proofread the revised manuscript and corrected minor grammatical, typographical, and consistency issues throughout.

Reviewer: Line 21: "Dissolved organic carbon" is spelled out, but its abbreviation (DOC) is not defined. Please define the abbreviation at its first occurrence.

Reply: In this sentence, "dissolved organic carbon" is used descriptively in the context of PER, and the abbreviation DOC is therefore not used. Introducing DOC here would add an unnecessary abbreviation and make the sentence less clear. We have retained "dissolved organic carbon" in full and define DOC at its first actual use later in the manuscript.

Reviewer: Line 290: The abbreviation "BR" is defined repeatedly. Please retain the definition only at its first occurrence.

Reply: Corrected.

Reviewer: Lines 375, 463: "Where" should be removed, or the sentences should be restructured for grammatical clarity.

Reply: Corrected. The word "where" was removed throughout the manuscript.

Reviewer: Line 491: "CO₂" is not defined at its first occurrence. Please define the abbreviation earlier in the manuscript

Reply: Corrected.