



北京師範大學  
BEIJING NORMAL UNIVERSITY

Shuai Wang

Haidian District, Beijing, China

No.19, Xijiekouwai St.

☎ +86 182 1009 3639

✉ shuaiwang@bnu.edu.cn

Dear Editor Barreteau

July 31, 2023

I am writing to submit the revised version of our manuscript entitled “Quantifying the Effects of Institutional Shifts on Water Governance in the Yellow River Basin: A Social-ecological System Perspective” originally submitted to Journal of Hydrology (#HYDROL52368). I would like to express my heartfelt gratitude to you and the reviewers for the thoughtful and constructive feedback provided.

Following the insightful comments and guidance from both reviewers, as well as your specific recommendations, we have made significant revisions to the manuscript. Below, I outline the key changes and responses to the concerns raised:

- (1) DSC Method Description and Wording: In accordance with Reviewer 1’s comments, we have expanded and clarified the description of the Differenced Synthetic Control (DSC) method. The revisions include a more concise explanation of the method and additional details to improve understanding.
- (2) Strengthening the Discussion: As you suggested, we have enriched the discussion section to align with the special issue topic. We incorporated more detailed analyses of the consequences of institutional shifts, provided real-world examples, and expanded on the social and hydrological processes driving these changes.
- (3) Clarification of Stakeholders and Processes: We have added specific information about the dominant stakeholders and their influence on the socio-hydrological process, as requested. This includes quotations and facts to provide a more comprehensive understanding.
- (4) Polishing Language and Structure: Throughout the manuscript, we have polished the language and restructured several sections for clarity and coherence.
- (5) Enhanced Conclusion: The conclusion has been rewritten to synthesize the key findings and insights, reflecting the manuscript’s contribution to the field of sociohydrology.

We believe that these revisions have significantly enhanced the manuscript and addressed the concerns raised by the reviewers and you. We appreciate the time and effort invested in reviewing our work, and we are confident that the revised manuscript will meet the high standards of Journal of Hydrology.

Enclosed, please find the revised manuscript, marked-up copy highlighting the changes, and a detailed response to reviewers' comments. We kindly request that you consider our manuscript for publication in Journal of Hydrology.

Thank you once again for considering our work. We look forward to hearing from you soon.

Sincerely,

**Shuai Wang** (On behalf of the author team)

State Key Laboratory of Earth Surface Processes and Resource Ecology,

Faculty of Geographical Science, Beijing Normal University, Beijing 100875, China

Email: shuaiwang@bnu.edu.cn