

Point-by-point replies to the referees' comments

General Comments and Suggestions: The authors utilized Shanghai Pujiang Country Park as a case study, this paper conducts a simulation analysis to assess the flood mitigation effectiveness of three distinct land use patterns (Natural scenario, Scenario N; Complete urbanization scenario, Scenario U; Country Park Planning scenario, Scenario P) under five stormwater scenarios with return periods of 2, 5, 10, 20, and 50 years. After reading the entire article, I feel that the author is not very good at writing and has many basic errors, mainly reflected in:

1. In the author's unit, a Chinese comma appears.
2. A complete article should include a discussion section, but the author did not write it.
3. The title of the image is generally "Fig. 1".

Response:

Thank you for your comments and suggestions. We apologize for the basic formatting errors you have mentioned in this manuscript. We will point by point make revisions based on your pieces of advice.

1. Based on your suggestions, we have revised the formatting errors in the article as follows,

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2. When we initially submitted this manuscript, we hesitated and omitted the discussion section. However, following discussions among all the co-authors, as you suggested, we concur that a complete article should include a discussion section. Consequently, we have added this section in part of **4.2 Discussion** (Page 10) as follows,

The analysis reveals that none of the examined scenarios exhibit substantial mitigation capabilities in flooding risk reduction during the occurrence of a 50-year return period storm. Notably, even within scenario P, the observed reduction in inundation area remains modest. Consequently, although ecological spaces like country parks may bolster adaptability to flood-related hazards [34-36], their efficacy in impact mitigation of infrequent yet intense rainfall events remains constrained [37,38]. These research findings corroborate previous studies within the field.

While Scenario P demonstrates superior performance in flood regulation functions compared to scenarios N and U across equivalent stormwater scenarios, its effectiveness could be further optimized through the integration of green infrastructure with grey infrastructure. This combined approach has the potential to mitigate the adverse impacts of infrequent yet intense rainfall events more effectively [39-42]. However, it is pertinent to note that this study primarily focused on self-draining in simulation analysis due to the lack of available drainage data, thereby omitting consideration of the grey infrastructure component of drainage facilities. In future analyses and research endeavours focused on evaluating the mitigation effects of ecological spaces on rainstorms and waterlogging at a broader spatial scale, municipal drainage pipe network data would be integrated. This incorporation is crucial for enhancing the precision and reliability of simulation outcomes, thereby facilitating a more comprehensive understanding of the role of ecological spaces in mitigating the impacts of rainstorms and waterlogging.

Suggestions for optimizing land use planning projects to reduce flood risk were derived from scenario simulation analysis. The forthcoming research will focus on developing a novel land use planning project that adopts a future-oriented perspective to evaluate the effectiveness of flood regulation functions. This endeavor aims to enhance land use management decisions by providing valuable insights into the design and implementation of strategies for mitigating flood risks.

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3. Thank you for your conscientiousness. According to the **Preparing Figures, Schemes and Tables** from the website of **Journal Menu**(<https://www.mdpi.com/journal/sustainability/instructions#figures>), we found that the form of figures, schemes and tables is illustrative in example Figure 1, Scheme 1, Figure 2, Scheme 2, Table 1, etc. We downloaded a recent paper issued on Sustainability, Volume 16, Issue 4 (February 2 2024)(<https://www.mdpi.com/2071-1050/16/4>) and further checked the form of figures and tables. Finally, we adopted the form in the revised manuscript.

Luckily, according to your suggestion and the rules of **Sustainability**, we found that there was no space between **Figure** and **1** and **Figure** and **2** in the older manuscript. We corrected already in page 2 and 3 and carefully proofread the entire manuscript.

References:

Tang, J.; Saga, R.; Cai, H.; Ma, Z.; Yu, S. Advanced Integration of Forecasting Models for Sustainable Load Prediction in Large-Scale Power Systems. Sustainability 2024, 16, 1710. <https://doi.org/10.3390/su16041710>