Title: **Reducing False Alarms in Urban Flood Detection: An Enhanced NDWI (ENDWI) with Hybrid Max Fusion on Sentinel-2 Data.**

Reply to RC1: 'Comment on egusphere-2026-672', Anonymous Referee #1, 19 Apr 2026 (Part-2)

Note No.1: Reviewer comments in italics
Note No.2: Manuscript updates are in blue.
Note No.3: Author's clarifications in green.

==Start

(Reviewer Comment)

Thank you for submitting this well-prepared and valuable manuscript. The manuscript presents a meaningful contribution by proposing an enhanced water index (ENDWI) and demonstrating its effectiveness in reducing false alarms in urban flood detection. The methodology is sound, and the results are convincing.

Only minor revisions are suggested to improve clarity:

1. The abstract could more clearly state whether ENDWI is a novel index or a modification of existing indices (e.g., NDWI), and briefly indicate its key characteristics.

2. A short explanation of the spectral rationale behind the reduction in false alarms would improve the interpretability of the results.

Overall, the manuscript is well prepared and suitable for publication after these minor clarifications.

Response:

Dear Referee,
Thank you very much for your valuable feedback and constructive comments.
Based on your remarks, we have explained the performance of ENDWI. The updated opening of the Abstract is provided below, and all revisions will be incorporated in the revised manuscript.

Abstract: Accurately distinguishing flooded from non-flooded pixels in complex urban environments remains challenging due to spectral confusion. This study proposes the Enhanced Normalized Difference Water Index (ENDWI = NDWI / Green band) to suppress urban noise. Owing to the extremely narrow dynamic range of raw ENDWI values, a novel Z-Split normalization technique was developed and applied exclusively to this index. The method expands the histogram while strictly preserving the zero value, thereby enabling more reliable Otsu thresholding and a fair comparison with seven established water indices.
==End

Thank you again, and please do not hesitate to provide any further comments.