This manuscript presents a dual-phase ensemble framework, which includes HEC-HMS, event selection from extreme scenarios, calibration, and a QRF post-processing stage, applied to reservoir inflow forecasting in the Nueces River Basin.

Overall comments:

The workflow is clear, but the methodology and scope are questionable. First, these steps, from the reviewer's perspective, are simply stacked together without a clear core logic. Hydrological forecasting is typically structured around uncertainty propagation or probabilistic prediction. In this paper, uncertainty is mentioned, but it is not formally structured.

(Take these papers as examples: https://doi.org/10.5194/hess-26-2939-2022, https://doi.org/10.1007/s11269-025-04138-1)

The study case is expected to be presented either at a disaggregated or aggregated level/region. However, the scope of the paper is not clear. From the title, the study focuses on reservoir inflow, but from Figures 1 and 2 and the results, multiple reservoir inflows are shown. Which one is the target? The paper attempts to achieve multiple goals simultaneously: improving accuracy, representing uncertainty, and extending forecast lead time. This results in a lack of clear prioritization and no unified objective function. Even in the results (Figures 7a and 10), the estimated values are far from the observed inflows.

The regression-based forecast extension is overly simplistic. Ensemble forecasts are already affected by bias and dispersion errors, requiring more advanced correction methods. Simple statistical methods are often insufficient compared to modern approaches. The use of linear regression for extending forecasts is not consistent with state-of-the-art hydrological forecasting practice.

The evaluation does not match the claimed goal. The paper claims probabilistic forecasting and uncertainty improvement, but the evaluation uses NSE, PBIAS, and CPI. Please provide references explaining why these metrics support the findings. Probabilistic forecasts should be evaluated using scoring rules such as CRPS if uncertainty representation is a key contribution.

Line-by-line comments

1. Abstract: As mentioned above, probabilistic forecasts should be evaluated using proper scoring rules such as CRPS rather than deterministic metrics. (https://doi.org/10.5194/hess-14-2545-2010)
2. Page 2, line 60: References are missing for "Dual-phase ensemble analysis…".
3. Methodology: The combination of physical ensemble modeling and statistical post-processing is not novel (https://doi.org/10.1080/27678490.2021.1936825). The proposed framework should be positioned relative to SOTA

(https://doi.org/10.1080/27678490.2021.1936825).

4. Pages 8–10: The ensemble consists of 12 members generated through parameter perturbation and initial condition adjustments. However, there are no detailed explanations or evaluations provided.

5. Equation 7: Why are weights of 3, 2, and 1 chosen for A, B, and C? This lacks justification.

6. Line 262: Why are the 5th, 50th, and 90th percentiles selected?

7. Pages 10–11: No data are presented. QRF is insufficiently justified, what's the input, how parameters are turned, and no comparison is provided. In addition, post-processing methods differ significantly in their ability to improve reliability and sharpness and should be benchmarked (https://doi.org/10.1002/hyp.9562).

8. Page 11: The use of linear regression is overly simplistic, as mentioned above. Hydrological processes are nonlinear and forecast uncertainty increases with lead time. In your model, how do you ensure that errors do not propagate?

9. Pages 14–19: Calibration appears to be conducted using only one event. Some values in Table 1 show large errors for certain events, such as 0.54 for the CPI weight. How do you ensure this does not affect forecasting? Is validation conducted using a single event? Ensemble forecasting systems require multi-event validation; otherwise, the validation is insufficient. (https://doi.org/10.1016/j.jhydrol.2021.126537)