

Point by point reply for:

A systematic evaluation of 15 actual evapotranspiration formulations within conceptual hydrological models. Co-authors: Gabrielle Burns, Keirnan Fowler, Murray Peel, Clare Stephens

We thank the editor for their valuable minor corrections and suggestions. The manuscript has been revised accordingly. Details of the specific changes made are provided below, with line numbers referring to the marked-up version of the manuscript.

Comment	Response	Action (changes in red)
Table 4, Eq 7 <i>Is the start meant for multiplication? If yes, please use a cross as in the other equations. Also, could you use parenthesis, just to avoid any ambiguity about the denominator?</i>	Thank you for pointing out this error. The symbol is indeed intended to represent multiplication. We have replaced it with a multiplication cross to ensure consistency with the other equations and added parentheses accordingly.	Equation 7 (Line 229 - Table 2): Minimum of • $(S / S_{max}) \times \text{PET}$ • S
Table 4, Eq 16 <i>In order to improve readability, could you adhere as much as possible to traditional mathematical formulation? Could you replace „SmoothStorageThresholdFunction“ by simply $f(S, p_s)$. Also, since the steepness parameter (p_s) seems to be fixed, I believe it reduces to just $f(S)$. I like that you give more information on the function in the Table description.</i>	We thank the editor for this suggestion. The notation has been revised to better align with conventional mathematical formulation. We have also clarified that the value of 0.01 is held constant as part of the MARRMoT implementation. However, we elected to retain $p_s = 0.01$ within the function notation to maintain consistency with the MARRMoT documentation and avoid potential confusion when comparing the equation with the original description.	Equation 16 (Line 229 - Table 2): Minimum of • $p_1[0-1] \times \text{PET}$ • $\times \text{SmoothStorageThresholdFunction}(f(S, 0.01))^{***}$ • S Description (Lines 225-228): ***The function $f(S, 0.01)$ refers to “Smooth Storage Threshold Function”, $(S, 0.01)$ refers to a logistic smoothing function implemented in MARRMoT, which gradually reduces fluxes as storage (S) approaches a lower threshold. This avoids abrupt cut-offs by applying a smooth, continuous transition, governed by a steepness parameter (here, 0.01, inherited from MARRMoT), allowing for more numerically stable and physically plausible flux behaviour when storage is low.
Eq 5 <i>The AET index consists of two words and at the same time a port os used. Could you somehow avoid using two words, but only one in the index?</i>	We agree that the original notation may reduce readability. The notation has been revised accordingly.	Equation 5 (Line 244, equation 5): $OFV_{AET} = \frac{1}{2} (KGE_{\text{daily-AET}, d}^{0.5} + KGE_{\text{monthly-AET}, m}^{0.5})$ Line 238: For AET, the KGE was applied to square-root-transformed data, following Gardiya Weligamage et al. (2025b) (Eqn. 5, where d is daily and m is monthly).