Comments from Referee 1:

In this MS, the authors discussed the capabilities of stochastic weather models on predicting rainfall in the Rangitāiki-Tarawera catchment. They have demonstrated the potential of SWM based on the ERA5-land data. However, some issues need to be addressed:

The author is supposed to add the "ERA5-land data" in the title, on which this MS is based.

New proposed title: "Brief communication: SWM: Stochastic Weather Model for precipitation-related hazard assessments using ERA5-land data"

In Lines 41-42, I don't get the point "converts values from accumulated to hourly rainfall", free hourly precipitation data can be downloaded from the ERA5 website.

ERA5-land data provides precipitation data at the hourly level *but* this is accumulated over 24 hours ending at 00 UTC, this is different to the single-level data ERA5 which is potentially causing the confusion. See for example the documentation on Accumulations: https://confluence.ecmwf.int/display/CKB/ERA5-Land%3A+data+documentation#ERA5Land:datadocumentation-accumulationsAccumulations

In Lines 68, 95 sets are obtained to provide ninety-fifth percentile bounds. According to the MS, the more sets the better results. The authors need to explain why they had to generate 95 sets?

The more sets ran, the more confident we can be in the results, because we have a better idea of the total answer space in which the simulated data can lie. We suggest the addition of information about standard practice for bootstrap significance testing as: "*this is common practice to assess statistical significance with non-parametric bootstrap methods (DiCiccio & Efron, 1996; Ramachandran & Tsokos, 2020)*."

Additionally, and subject to both reviewers' responses, we are happy to run, e.g., 999 runs and pull the 95th percentiles from this. The reason we did not do this for initial submission was because the memory allocation of 95 * 40 years of hourly data at 11 x 14 locations was close to the operating capacity of the then-standard desktop computer used by Whitehead, so we thought this would be easier to replicate by readers / reviewers.

Fig. 3, the authors are suggested to draw the ninety-fifth percentile bounds at (e) to (j).

Figure 3 caption text has been updated to include: "Ninety-fifth percentile bounds for (e) to (j) are represented by the envelope built from the simulated data (grey lines)"
We note that as each set of simulated data include some variation, every time this exercise is run we would see slightly different results which is why we ran two sets (sample 1 and sample 2), with extra results and variations between the two shown in the supplementary material.

The above details will also change if we perform the 999 run update.

Fig. 3, The ACF values approximate 0 over time, maybe adding a table could better illustrate the results.

The figure/table limit is already reached for Brief Communications for NHESS, and we feel that temporal trends are better visualised as plots against time. However, we can consider adding this to supplementary material if the reviewer feels strongly about this necessity, but would request more clarity about how the reviewer feels this could best be presented as a table.

Fig. 3, some small mistakes in the Y-AXIS of (f) and (h).

Good eye – thanks! This was due to how the figure was built, all fixed now.