

Interactive comment on “Streamflow forecast sensitivity to air temperature forecast calibration for 139 Norwegian catchments” by Trine J. Hegdahl et al.

Anonymous Referee #2

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This manuscript presents analyses of the sensitivity of streamflow forecasts to air temperature forecast calibration. The manuscript is well written, well structured, and I only have a few minor comments to the presentation, most of them just edits.

I find the description of validation scores and evaluation scores in 3.2 somewhat short. The section could give a better description of the rank histograms, and what is actually meant by the different shapes. And what is meant by slope and convexity being “negatively oriented”? Something seems wrong with the last sentence.

P2L5 three main componentS?

P2L14 Langsrud et al, 1998a and 1998b are missing from reference list. What kind of
C1

statistical uncertainty models? (One line, to understand better what is different from the ensemble forecast)

P4 2.1 Is Gjuvaa in the region South or East? Bulken is in the West region?

P5L20 PEST can be generic tools for parameter estimation or a particular software, what is it here?

P6 2.2.4 / 3.1.1 Is the forecast from ECMWF point forecast (centre of the grid cell) or averages for the entire grid cell?

P7L29-30 “In this study, the ensemble range (...) visually assessed the sharpness.” Something seems wrong, rephrase.

P9L12-13 since “reliability has improved and some sharpness is maintained”. This could be better explained.

P6L29 I guess it should be “atmospheric lapse rate”?

P8L17 remove s from catchments.

P9L9 remove comma after convexity

P10L7 they performs – remove S.

P11L17 Rather than just sensitive, I think QM is unable to correctly map forecasts outside the observation range.

P12L2 temperatureS are?

P14 L29 “elevation correction dependency on lapse rate” – is this correct?

P16L17 No publisher?

Fig1 caption: Most of the catchments on the left are too small to be visible?

