

Hydrol. Earth Syst. Sci. Discuss., author comment AC5  
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## Reply on RC5

Leah A. Jackson-Blake et al.

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Author comment on "Seasonal forecasting of lake water quality and algal bloom risk using a continuous Gaussian Bayesian network" by Leah A. Jackson-Blake et al., Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2021-621-AC5>, 2022

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It has become clear through our discussions that we do need to work on further clarifying and justifying the choice of explanatory variables used in the exploratory statistical analysis, the sources of data used for model development, and the sources of data that would be used in any operational forecasting. As well as improving the text, we will have a think about adding a little conceptual figure early in the methods Section to illustrate these points better.

Otherwise, we think the reviewer's suggestion of adding in a comparison of the differences and pros/cons of GBN vs MLR is a good one. Although a comparison of actual predictive performance would also be interesting, we feel like this is outside the scope of the paper, unless the reviewer (and perhaps Editor) feel strongly that it is needed? However, we could certainly add a section comparing the two approaches, probably to the Discussion.