

Hello,

This manuscript has vastly improved with the reorganisation and clarification provided. I have two general concerns remaining:

1. The link to bank storage is weak in the modelling and results, but prominent in the findings. The available hydraulic data do not provide supporting evidence (the groundwater level is not recorded above the water level of Lake A). I understand there were technical issues with the hydraulic measurements, so perhaps more use could be made of the isotopic model, or a clearer link provided to the hypothetical scenarios presented for the G-index. For example, can you get a good fit to the isotopic data with a groundwater input that has an isotopic composition intermediate to flood water and groundwater in the May – August time period?
2. The isotopic data presented in Appendix E (and Figure 6) clearly indicates that the lake is not well-mixed in August (the only depth profiles outside of winter). Arguments supporting the well-mixed model choice are provided; however, I do not think the first-order nature of the estimate of water fluxes is clearly emphasized throughout the manuscript (for example, it is not mentioned in the abstract).

Other minor comments are provided below.

Line 21: Lake A water budget?

Line 22: This is contradicted in the discussion.

Line 48: Delete “nearly impossible”. The reference doesn’t say it’s impossible. Just time-consuming, expensive, and difficult.

Line 54: This paragraph would benefit from a topic sentence before diving into the specifics of previous studies.

Line 66: I remain unconvinced that bank storage is the correct term – perhaps a more general delayed (in subsurface) and direct flood water inputs?

Line 72: Flood water storage – surface (in the lake) or subsurface?

Line 81: “a” not “an”

Line 100: Rephrase: The direction of the surface water flux in S2 reverses when the water level in Lake DM exceeds... Does flow reversal also occur in S3?

Line 124: “Tin Lake A” – rephrase or define.

Line 125: Define the observed period here at first mention.

Line 127: Suggest rephrasing - It remains an assumption that Lake DM controls the water level variation at obs well VP. Perhaps “the data indicates”. To the reader it is unclear why the Lake A water level is not used – state here that the logger broke.

Line 131: Suggest rephrasing to say that Lake A water level is not controlled by Lake DM in this period.

Line 137: Figure 2 indicates the water level in Lake A is below Lake DM in mid Dec (even considering error bars shown) – why wouldn't the water flow into it? Maybe it only happens for a short time (which could explain the lower correlation)

Line 151: Could there not also be Qg out the southern end of Lake A? Ie in the direction of regional groundwater flow.

Line 157: Rephrase to put Lake DM immediately after Qs otherwise this sentence reads as if Qg is possible going to Lake DM, which contradicts Line 150.

Line 161: If the water causing the water level increases is not coming from Lake DM, then where is it coming from? Direct precipitation? S1?

Line 274: The manuscript first argues that there is not a strong correlation, and then use Lake DM as representative? I get that the absolute level doesn't matter, but why not just use the obs well the whole time? Does this change the results?

Line 283: Are there 2 Penman-48 methods? Suggest rephrasing as it is unclear which is used in the model, the one that underestimates or the one that doesn't. If it's the one that doesn't underestimate in late summer-fall, the results are unlikely to be affected. Otherwise: Line 284: how did you resolve this? Specific heat capacity of water. Does this markedly affect the isotopic balance and interpretation?

Line 291: "The outflows of the lake are thus..." I still find these comments misleading. I suggest rewording to explain that the change in outflows from the lake is roughly proportional to the change in water level.

Line 302: Suggest inserting "it is assumed that" immediately before "the rising water level". Groundwater may still be entering lower in the lake.

Line 344: Does this use of the LMWL-LEL account for flood waters? This assumption will likely only hold where groundwater is sourced from the local precipitation, and is not subjected to different rates of evaporation during infiltration. It is curious to me that no isotopic data collected from the groundwater wells at the site is presented to support this choice.

Line 348: Where is Saint-Telesphore and why is it considered a useful comparison?

Line 377: depth-average "d" – the "d" is missing

Line 381-384: Unclear where the dates and isotopic values come from until reading the caption to Table 1. It would help the reader if the scenarios were more clearly presented and their purpose more clearly articulated – ie is it to compare lengths of flood-water control?

Section 2.2 Sensitivity analysis. Should this be Section 4.2.2? Given what the paper is aiming to do, this section would benefit from linking the effects of these changes to the different water fluxes.

Section 4.4 I'm struggling to reconcile this with the isotopic modelling – if the water discharging back to the lake is flood water, then wouldn't it have the isotopic signature of flood water? My understanding is that δG is held constant in the model. To test this, why not alter δG over this time period?

Line 577: This contradicts line 522 which categorises the lake as relatively resilient – clarify.