Author Response to reviewer 2:

We are grateful for the comments and address the following:

Reviewer's comment	Authors' comment	Suggestion of changes in the manuscript
1. "Use of a Kalman filter to fill missing values of meteorological time series should be briefly discussed"	Already answered: https://editor.copernicus.org/index.php/gmd-2018-314-SC1.pdf?_mdl=msover_md&_jrl=365&_lcm=oc108lcm109w&_acm=get_comm_file&_ms=73376&c=157993&salt=1095167195190759503	
2. P7, L1-2. Please explain better	This is addressed in responses to reviewer 1	
3. P8, L5. What is the Grifone station being used for? It'not clear at this point in the manuscript	Yes, no need to mention Grifone here, so just remove the short sentence at P8 L5. It is already written at P28 L4. Grifone is the place where data are taken (discharge and water temperature) at a stream gauge. Please check for Fig. 3 and Appendix A.	Removal of the short sentence at P8 L5
4. P9, L12-14. What did Lenhart et al. (2002) state? Please explain better.	This is addressed in responses to reviewer 1	
5. P9, L12-14. The Authors should disclose that wind affects the simulation of lake levels through its influence on evaporation.	Thank you for this remark. The addition of this information makes the choice of the parameter for the sensitivity analysis clearer.	We will add this remark and rewrite this passage the following (P9, L11): *" ... wind_factor as wind can impact the lake level due to its influence on evaporation. The option ..."*
6. P9, L18-22. This passage should be explained better.		P9, L19: *"... considering the **three** parameters ..."* P9, L22. *"... calibration. Not considering parameter ch is plausible, as its SI value matches only just the threshold to be medium sensitive."*

7. P10, Fig. 4. Such information would be more efficiently conveyed by a table (see Table 1 for the Lake Ammersee case). 8. P15, L12. What is the meaning of "factors of discharge"?	We think a figure depicts the information easier and more intuitive than a table. Hence, we would remain this figure here. It is meant the *inflow_factor.*	We will revise: "*... considers the inflow_factor (i.e. simple factor for the discharge values of the inflows) ...* "
9. P15, L20-22. What was the total number of performed simulations and how long did they take overall? I would like to ask the same also for the previous Lake Baratz case.	We will add information on the number of simulation and calibration runs. The simulation time of autocalibration runs varied from several hours to 3 days dependent from the number of calibration parameters (please see also the response to reviewer 1, comment 1)	For Lake Baratz, we will add at P9, L22: "*Within the calibration process in total approx. 3000 simulation runs in 6 calibration runs were conducted."* For Lake Ammersee, we will add at the end of the section 4.2 on (P15): "*In total approx. 50000 simulation runs in 12 calibration runs were conducted within the calibration process".*
10. P16, L4-5. The RMSE and MBE values reduced with respect to what?	The RMSE and MBE values are reduced by the calibration of the inflow factors instead of "default" inflow factors of 1.0 for all tributaries.	We change the sentence as follows: *"By using these adapted inflow factors instead of the default value of 1.0, the overall RMSE reduced significantly from 1.10 mto 0.20 m, and the MBE from - 1.00 m to 0.09 m, and the achieved model fit can be assessed as very satisfactory."*
11. P16, L11-12. This contradicts the statement at P16, L6-8. Please clarify.	Correct, this might be too optimistic. We will remove the latter statement	Removal of the sentence P18, L18/19
12. P16, Fig. 8. Looking at this plot I would not state that the achieved model fit is "very satisfactory" (P16, L5). Large errors dominate for most of the simulated period.	Indeed, there are differences, but the general, natural behaviour of the curve is following the general conditions.	
13. P18, L6-9. The Authors should discuss the possibility to employ in the future more refined calibration methods than the adopted plain Monte Carlo approach, such as MCMC	The reviewer is absolutely correct. Other calibration methods could help reduce computational resources and time. As this is the initial version of the package, this	

(Markov chain Monte Carlo) and other methods, which allow better addressing the computational effort.	will be improved in upcoming versions using more efficient calibration methods.	
14. P18, L14-16. Please explain better.	Due to the calibration algorithm of percental alterations, values of parameters are created (outputted) with a high decimal precision. For example: Applying an autocalibration for an initial value of 0.23 (= default value of coef_wind_stir) with a range of 30% and for an interval of 5, RMSE will be calculate for parameter values of 0.299, 0.2645, 0.23, 0.1955, 0.2093. In our opinion the explanation is clearly formulated	
15. P18, L27-28. The Authors should stress that the main benefit of GLM in a hydrological analysis is that lake evaporation is calculated with higher accuracy than by using classic formulas.	The GLM uses the commonly adopted bulk aerodynamicformula to estimate the latent heat flux and therefore evaporation (Hipsey et al., 2014). The bulk formula is **the** classic method to estimate evaporation over homogenous areas (for instance lakes or oceans; Foken 2006, 128). If the "hydrological analysis" just uses e.g. Penman-Monteith for the whole catchment (including the lake), it is a major upgrade for the estimation of evaporation to use the GLM/Bulk formula for the lake area. Therefore we propose adding the sentence passage stated right to the manuscript:	*"The GLM uses the bulk aerodynamic formula to estimate the latent heat flux and therefore evaporation (Hipsey et al., 2014), which is commonly applied to assess the evaporation rate over open water bodies (Fischer et al., 1979; Hicks, 1972). Including the GLM in the hydrological analysis can therefore improve the accuracy of the modeled evaporation and thus the water balance estimate."*
16. P20, L12. Why and how was the observation setup demolished? It's just my personal curiosity.	Majority of the land around the lake is private, and the University of Sassari had an agreement with an owner for many years. However, once the agreement expired it was not possible to renew it and the station was dismantled.	

17. P20, L17. I do not understand well the meaning of the R^2 index for the lake station itself. Please explain.	Yes, this is misleading and the information is obsolete, please see also responses to reviewer 1	Removal of the brackets and their content
18. P21, L6-8. Specify that these are average differences. 19. P23, L7-8. Please explain better.	OK It makes no sense to obtain by calculation values exceeding the maximum observed value. Hence the maximum possible value is fixed to be 97,0, but stated wrong in the manuscript	Specification will be added Replacement of 96,7 by 97,0