

We would like to thank the editor for the valuable comments. Hereafter we hope to clarify the questions arised:

**1) Regarding the relevance of the analyses w.r.t. the influence of the operation strategies on the outflow values: please reflect on the importance of your work compared to such operational conditions in the manuscript (now it is only given in the response to the reviewer).**

Now we have included this clarification in the text (lines 88-91):

*However, it is worth noting that the results obtained in this study may not be completely extrapolated to other areas with larger reservoirs and/or dry climatic conditions. Also, it is important to clarify that the operation strategies of the dam are key to determine its outflow and they can be used in different ways to improve the prediction models. However, this research focuses on the capabilities of different machine learning approaches to forecast the total outflow of the next 24-hour period and therefore infer the operation strategies from the data.*

**2) The question regarding your assumption that the lamination capacity of the dam is almost cancelled. I.e.**

**“Therefore, the lamination capacity of the dam is almost cancelled, and the outflow is equal to the inflow.”**

**This is not correct: even at 100% storage (pool level equals the spillway level), the reservoir capacity above such level is far from negligible. On the contrary, the reservoir volume is higher for high pool levels. This is only true in small reservoirs with high inflow rates, after long period of high inflows, close to the spillway capacity.**

We wanted to apologize for not clarifying this point sufficiently in the previous revision. We agree with Referee #3, even at 100% storage the reservoirs retain certain capacity above that level. Therefore, we removed that statement in the previous revision (lines 61-63):

*In order to forecast the outflow of a reservoir, the most simplistic approach involves assuming that the reservoir ~~is at 100% of~~ surpasses its storage capacity. ~~Therefore, the lamination capacity of the dam is almost cancelled, and~~ therefore the outflow is equal to the inflow.*

And clarified that it can be acceptable only under certain conditions as the referee remarked (lines 64-66):

*...it can be a ~~good~~ reasonable approximation ~~only in flood scenarios during wet seasons, especially in relatively small reservoirs or during wet season~~ when they are nearly full close to the spillway capacity after a period of high inflows, and therefore have little margin to alter the natural flow of the river.*

However, we wanted to remark that this is only a possible approach that is not even studied in this work, and simply consists in considering that the river flows at a natural regime as

there were no dams. We have modified the paragraph in this iteration in order to clarify this aspect (lines 62-68):

*In order to forecast the outflow of a reservoir, the most simplistic approach involves assuming that ~~the reservoir surpasses its storage capacity and therefore the outflow is~~ would be equal to the inflow. Although this approach is an over-simplification of river dynamics, it can be a reasonable approximation under very specific conditions. For example, in relatively small reservoirs during wet season when they are close to the spillway capacity after a period of high inflows, and therefore have little margin to alter the natural flow of the river. ~~Under normal conditions, the simplest~~ Another simplistic approximation ~~is~~ would be ~~to assume~~ assuming that the outflow of the reservoir for a given day  $d$  will be the same as on day  $d-1$ .*