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This work investigates a multi-objective reservoir operation problem with streamflow forecasting by combining some models and procedures well-known in water resources engineering. The theory and method are not new, but the case studies are detailed and impressive, with some meaningful conclusions drawn in the work. The manuscript could be organized better, and the mathematical formulation could be expressed in a more professional way, so that the contributions of the work can be better appreciated by readers.

Specific Comments:

There are some comments, questions and suggestions that may help improve the quality of the manuscript, including:

(1) Some comments in literature review could be more precisely. The LSTM and GRU, for example, were not only applied in few previous works (refer to Line 55 in the manuscript), and the research works on impacts of forecast horizon on reservoir operation were not rare (Lines 59 and 71).

(2) It is unclear how the weight matrices involved in the forecasting models (Lines: 124 and 136) were estimated, and what / which criteria were used in calibration.

(3) It is left unexplained:
- How the parameters used to define the operational policy are estimated,
- What specific hydrological variables are included in the “policy inputs”,
- How these “policy inputs” are related to the decision horizon, and
- How the policy could be implemented with all constraints enforced in a day-by-day practice,
- Why it is called “multi-objective” since involving only an objective (26)?

(4) I think this work has formulated an incomplete reservoir operation problem. The water balance, for instance, does not reflect the hydraulic connections shown in Figure 4. The relationships between water supply, pumping flow, inflow and discharge are not incorporated in the model. Also, how the MORDM is related to this operational problem? The model looks like a linear programming problem that can be easily solved.

(5) The manuscript will benefit from more logically organizing its contents. The “Results and Discussion” are usually a part of the case studies. Theory, models, procedures and definitions are generally presented before case studies, and some of them need more detailed introduction, including:
- How the weights in the BMA are determined (Line 320),
- How the Monte Carlo simulation method is used to generate BMA ensemble forecasts (Line 359),
- What “the previous water levels” is supposed to mean (Line 381),

- Why the NSGA-II are still needed since we already have the operation policy determined (Line 383),
- How the deterministic, uncertain and observed streamflow are used in the operation (399),
- How the Pareto solutions are identified (Line 387),
- Whether or not the annual revenues, costs, and water supply reliability (Line 409) are used as multiple objectives when determining the operating policy,
- "Fake" results do not have any meaningful value, so why they are included in Table 6 in the first place (Line 428).

(6) To the best of my understanding, the NSE was used to calibrate the forecasting models while the RMSE and MAE are also used in assessing the performance of the models. I think it should be a fairer practice by using multi-criteria to do both the calibration and assessment.

(7) Please justify why the Radial Basis Functions are used to parameterize the policy (Line 199)?

(8) Including the test period when minimizing the NSE (Line 285) will make it lose efficacy in assessing the model performance in future.

Technical Corrections:

(1) Please rewrite the term ($\sum_{i=1}^{K} w_k f_k$) in equation (19), which just does not make sense to me, with the f_k being a model.

(2) Please double check all the mathematical expressions. To mention a few,

- In equations (19) and (20), the sum should be operated over subscript "*k*" rather than "*i*".
- It might not be right that the subscript "*k*" on the left side does not appear on the right side of the equation (28).
- It sounds not right to me in equation (34), where a variable without subscript "j" is summed over "j".
- It is questionable that the equation (35) does not have a subscript for the first sum operator to operate over.
- Expressing a variable subscript "*n*" in "Q_{max_n}" (Line 247) is something strange.
- Please check on all similar unprofessional expressions in (39), (42) and (43).

(3) Please do not omit subscripts in mathematical symbols. And for all the definitions of math symbols, all the subscripts in any symbol should appear in its definition.