

Response to the Editor's and Reviewer's comments

Forecast of daily nutrient loading as well as its concentration is a challenge task as it is the holistic result after a range of complex interactions with water, soil, microbe, etc. This paper presents an interesting exercise in southeast US by combining the daily precipitation forecast as a main driver. It was improved a lot after the first round of major revision. Though, the following minor comments should be addressed other than the comments from the anonymous reviewers.

1) The statement that the skill in predicting the observed TN loadings increase with increase in drainage area is not surprise. The chapter 2 (e.g., page 26) of PUB book (Runoff Predictions in Ungauged Basins: synthesis across processes, places and scales, by Guenter Bloeschl, Murugesu Sivapalan, and et al.) has argued similar conclusions several times in spite of its runoff prediction background. Please place your findings in the context of literatures.

Response: This has been added in the appropriate paragraphs related to the discussion of Figure 6.

2) Also for the review of streamflow forecast approaches, the authors missed some progresses like Extended/Ensemble Streamflow Forecast method proposed by Day (1985) and further improved by Wang et al. (2011) and Yang et al. (2014).

[1] Day, G. (1985), Extended Streamflow Forecasting Using NWSRFS, Journal of Water Resources Planning and Management, 111(2), 157-170.

[2] Wang, E., Y. Zhang, J. Luo, F. H. S. Chiew, and Q. J. Wang (2011), Monthly and seasonal streamflow forecasts using rainfall-runoff modeling and historical weather data, Water Resources Research, 47(5).

[3] Yang, L., F. Tian, Y. Sun, X. Yuan, and H. Hu (2014), Attribution of hydrologic forecast uncertainty within scalable forecast windows, Hydrol. Earth Syst. Sci., 18(2), 775-786.

[4] Bloeschl G., M. Sivapalan, et al. Runoff prediction in ungauged basins: synthesis across processes, places and scales. 2013, Cambridge University Press.

Response: All the above references have been added.

Reviewer #2

(1)In "Introduction", I think that the authors should undertake extensive literature review on watershed management programs in response for water quality degradation, such as effluent trading, total maximum daily load allocation as well as water-quality management under uncertainty.

Response: I think we have covered the references quite a bit and we tied it closely with the narration of the introduction. A detailed literature review may be beyond the scope of this paper.

(2)In "Conclusion", I would suggest the authors to set up a separate paragraph for giving a more detail explanation about the new findings in terms of the results which can provide decision support for water quality management.

Response: This has been incorporated in the revised version of the manuscript.