

Dear Associate Editor,

We are grateful for the supportive and constructive comments provided by you and the two reviewers on our manuscript. We have addressed the remarks from Reviewer 1 and incorporated the suggested changes into the manuscript.

Below, you will find the original comments from Reviewer 1 in bold, followed by our detailed responses and a description of the revisions made to the manuscript.

Kind regards,

Alexandre Lhosmot, on behalf of all authors

The authors have made substantial efforts to improve the manuscripts based on the referees' comments on the previous version of the manuscript. I have only a few minor comments on this revised manuscript:

L262: a standard deviation (std = 0.33) is given after the R² value (0.7) of the regression of outlet and wetland WTP. I'm not sure what this std refers to, as R² values are not associated with this statistic.

Thank you for your comment. To clarify, the R² value was computed separately for each month from May to September over the three years of the study, but only for the months when both outlet and wetland WTP data were available, resulting in a total of 8 R² values. The mean (0.70) and standard deviation (0.33) refer to the distribution of these 8 R² values. We agree that standard deviation is not associated with a single R², but here it describes the variability of R² across time. We propose to clarify this sentence as follows:

Starting at line 261 (revised submission): "The mean coefficient of determination, R², (\pm std) of the monthly linear relationships between wetland and outlet WTP, calculated for the months with available data between May and September over the three study years, was 0.70 \pm 0.33 (n = 8)."

L360: "The annual total P in 2016 and 2015 was lower or higher than the 27-year mean". Lower or higher? Which is it?

We corrected as follows:

Starting at line 261 (revised submission): "The annual total P in 2016 and 2015 was lower and higher than the 27-year mean, respectively, but within one std."

L534: "Firstly, the spring freshet is shown to occur earlier in the Arctic-boreal region." Earlier than what? I assume earlier than before, but this is not stated.

Thanks, we corrected as follows:

Starting at line 535 (revised submission): "Firstly, the spring freshet in recent years is shown to occur earlier in the Arctic-boreal region compared to previous decades."