REFEREE 2

The paper by Bluteau et al discusses the nutrient transport from diverse pathways in the Lower St. Lawrence Estuary. From new data collected in winter and previously published data sets, a nutrient inventory in the upper water column is presented. Their results indicate that the fluvial loads are a much significant input of nutrients into the Lower St. Lawrence Estuary than turbulence mixing processes.

I think that this manuscript offers very valuable information that revisit the relative importance of fluvial and vertical inputs for supplying nutrients into the St-Lawrence Estuary throughout the year. The rationale of the paper is solid, the methods used are excellent, the analyses are appropriate and the interpretations well-founded. I therefore recommend it for publication

Minor comments

Please find below some minor points for the attention of the authors:

Lines 106-110: subscripts and superscripts should be used in chemical compounds such as NO3-, NO2-, PO4-3 and Si(OH)4

We have fixed the subscripts and superscripts of these chemical compounds.

In figure 3, 5, 7 and 8, isolines are shown in the graphs, but what kind of method/interpolation have you used to generate the contour lines?? You should specify it

The contours were obtained using a Data Interpolating Variational Analysis (DIVA) technique to handle the unevenly spaced spatial data. This algorithm is embedded in Ocean Data View Software. We have now cited the DIVA technique in the captions of each figure, and cited the Ocean Data View software in the code acknowledgements.