Reply on RC1

Hugo Lepage et al.

Author comment on "Concentrations and fluxes of suspended particulate matters and associated contaminants in the Rhône River from Lake Geneva to the Mediterranean Sea" by Hugo Lepage et al., Earth Syst. Sci. Data Discuss., https://doi.org/10.5194/essd-2021-350-AC1, 2022

Dear RC1,

Thank you for your review. Below are some responses to the various comments:

- we have improved the quality of the figures (although fig.2 is a compilation of screenshots from the database) and added information to the map.

- we mention the city of Geneva because, although the contribution of SPM is indeed negligible due to Lake Geneva, this city can still play a role as a source of contaminants, in particular of contaminants related to urban effluents.

For the SPM part, we do not yet have all the cross-sectional profiles, but the turbidimeter and the particle trap are generally immersed at a fixed position along the riverbank near the station, avoiding dead zones or effluent, so that the measured turbidity and SPM content are representative of the river cross-section.

We do not separate the organic suspension because it is a negligible part of the total sample (see POC measurement). We have added a sentence on the manuscript.

Finally, at the Arles monitoring station (SORA), the intake is located on a floating structure at a distance of 7 m from the bank and 0.5 m below the surface independent of water flow as explained later in the manuscript. We have corrected this to have this explanation earlier.

Sincerely,

The Authors.