Comment on essd-2021-350
Anonymous Referee #1

Referee 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-RC1, 2021

The authors provide information about a very interesting database. In general, the content of the article is good enough. It is advisable to make small changes.

- The quality of Figure 2 may be improved
- It is necessary to add to Figure 3 the location of all dams, as well as cooling ponds of nuclear power plants.
- It is not clear why to mention Geneva as a large city if the sediment runoff from Lake Geneva is taken as insignificant.

Section 3.2 Suspended Solid Concentration (mg L⁻¹)

- It would be useful to show the cross-sectional profiles of the river channels at the sampling sites and show the sampling points on these profiles.
- The turbidity measurements by the optical method were carried out at one point of the channel? How was this measurement point chosen at each station?
- Text between lines 140 and 145. That is, the organic suspension was not separated from the mineral suspension. It is necessary to explain why this was done?
- In the mouth of the river (Arles, near the outlet of the Rhône River to the Mediterranean Sea), sampling was carried out in 150 mL bottles. From what depth was the selection carried out? Did the sampling site change depend on the water flow rate? In what part of the river bed was the sampling carried out?