Comment on essd-2021-440
Anonymous Referee #2

Referee comment on "Escherichia coli concentration, multiscale monitoring over the decade 2011-2021 in the Mekong basin, Lao PDR" by Laurie Boithias et al., Earth Syst. Sci. Data Discuss., https://doi.org/10.5194/essd-2021-440-RC2, 2022

This unique and detailed dataset on water quality measurements in the Mekong River is a valuable contribution to the field of health-related water microbiology and hydrology and the authors make it freely available for future use by others. It regroups data collected over a decade at various spatial and temporal scales, and part of the data presented here have been focused on in recent publications of the group.

Line 98: please add "to" before "achieve".

Line 111: Please specify whether you performed blanks for E. coli enumeration to ensure absence of contamination. Considering the LOD determined here, it could be useful to indicate in the text the percentage of samples below LOD.

Line 117: what volumes were typically filtered for TSS measurements? Considering the very small porosity of the filters (0.2 um), I would expect (very) small volumes to be filtered, which could in turn introduce a source of uncertainty. Usually, TSS is determined using glas-fiber filters of 1.2 - 1.5 um nominal porosity. Please explain how you proceeded here, especially with turbidities exceeding 200 NTU. Please cite an appropriate SOP reference.