

Dear Anonymous referee#3,

We are grateful for your valuable and fruitful comments. The responses to each comment can be found in “*italic*” font below the comment.

Q1. Personally I would like to see the results directly compared to the work of previous researchers in a more accessible manner. The discussion is adequate but I think it would be improved by the inclusion of a table or plot of comparable previous findings. This could then form the basis of the discussion of similarities and differences of findings of previous research.

Answer: A summary of the estimated longitudinal dispersion coefficient for different estuaries has been inserted as Table 1. A summary of longitudinal dispersion coefficients of the SRE for different river discharges under HWS and LWS conditions has also been inserted as Table 2. The results now directly compared to the work of previous researchers including similarities and differences of findings with previous research work in section 4.2 and 4.3 of the revised manuscript.

Q2. However I do agree that the model choice and associated limitations and uncertainties should be discussed further within the paper. At present there is a lack of detail in the justification of the choice of model, discussion of modelling assumptions, and the associated consequences for the study.

Answer: The choice of model and associated limitations, uncertainties and consequences has been discussed in section 3, 4.2 and 4.3 of the revised manuscript.

Q3. I also agree that it would be worthwhile deploying a 3D model in the future should the data be available.

Answer: We are trying to extend our research using 3D hydrodynamic model (FVCOM or Delft3D) to predict salt intrusion through calibration and verification with extensively observed dataset under various river discharges, mixing coefficients and bed friction values. We hope that this follow-up study may represent more detail structure of salinity intrusion with our extensive data set.