

Dear Authors

I now have the referees' comments on your revised manuscript; I assume you have seen them (please tell me if you do not have them). Below I have some *italicised comments* on how you might respond to them. This looks like a lot but I should tell you that both referees rated this manuscript as "good" and asked for (only) "minor revision"; please do what is practicable to address these comments.

Yours sincerely

John Huthnance (editor)

#### Referee 1

First paragraph of the review "The manuscript would still benefit from the development of a more consistent story line and the formulation of a research question." *In your line 30 "investigates" is rather vague and would be clarified by immediate connection to lines 34-38 where – implicitly – you state the aims by stating what you quantified. "But the limitations of the paper should be stated clearly, preferably in the introduction or method section, rather than, as the authors have chosen, in the result-discussion section (4.1)." I think probably in the method section, but only as limitations known before doing the work. It is quite conventional to discuss limitations as part of a Discussion section, perhaps especially the limitations that appear by doing the work.*

"Chapter 1: Line 13-38: Introduction . . ." *I mostly agree. Your present introduction is quite short and could include more about "the state of the art" and how you intend to advance it. However, in the introduction you should avoid referring to what the manuscript achieves or to the results obtained.*

"Chapter 2.1: Line 70-115: . . ." *The specific points on lines, 74, . . 90 are all improvements. "Line 99-104: . . ." I am not sure about this. Implementation values are most naturally kept with the formulation they relate to. But perhaps aspects of formulation (wind drag, bottom friction, vertical diffusivity – and boundary conditions?) should come before time step and output frequency. More references would help.*

"Line 103-104: . . ." *Maybe the point is that (for example) stress resulting from a daily-average flow is not equal to (usually greater than) daily-average stress. So it is necessary to use variables at the frequency of the time step for all (especially non-linear) calculations before "final" output.*

"Line 108-109: please correct: .... and is computed by dividing .... with .... ." *I think ".... and is computed by dividing .... by .... ."*

"Chapter 2.2: line 117-144: Numerical experiments . . ." *I generally agree with these comments.*

*“Chapter 2.3: Line 146-198: Model validation . . .” I generally agree with these comments so please consider them. Of course for validation you can only use data that you can find. You should put enough of your previous responses in the manuscript for other readers not to ask the same questions that you responded to.*

*“Chapter 3.1: line 204-228: Water division . . .” This is probably fair comment but the last paragraph of this section 3.1 is important regarding some form of validation and its first and last sentences. Respond as best you can but do keep this section in some form.*

*“Chapter 3.2: line 230-276: Spatial and . . .” I agree with a majority of the comments. In lines 232, 265 maybe “peculiar” → “particular”. However, I think you should choose your wording for lines 240, 254, 255, not necessarily follow the referee. In line 260, best to avoid “surficial” but you might simply want “2 m surface layer”.*

*“Chapter 3.3: line 278-320: Lagoon . . .” Line 283 I agree with the referee but Line 284 either “induced” or “driven” is OK.*

*“Chapter 3.3.1: line 322-359: Assessment . . .” Line 321 - I agree. Figure 11 – I am not sure; there is a strong point that “Sol. A” and “Sol. B” are very close and “Sol. C” and “REF” are very close. Difference plots (A-B or C-REF) would need a different scale. Line 322-359 – is there an “expected outcome of the reconnection”?*

*“Recommendation . . .” I think this is a suggestion that you might move the discussion relating to (1), (2), (3) to the respective sub-sections of section 3. I do not insist on this but you should think about it.*

*“Chapter 4: line 360-464, River-sea modelling . . .” What you do about “There should be a chapter 4: Discussions, before sub-chapter 4.1” depends on what you do about “Recommendation . . .”.*

*“Line 361-404:” See above about “First paragraph of the review”*

*“Line 399” and “Line 463-464”. Please respond to these comments in the revised manuscript.*

*“Chapter 5: Line 465-499: Conclusions . . .” I agree*

*“Reply to the authors response:” Not all of this asks for changes, but do consider what requested changes would be easy to do.*

*Referee 2. Please take account of these comments as best you can. The references to L105 and L121 might be looking at a different version of the manuscript*

*Editor comments previously sent to you.*

Line 276. This part of the sentence does not relate to the previous part. Maybe “. . and of the winds . .” but the sentence is too long.

Line 318. “which resulted mostly influenced” needs correction.