The present study investigates the impact of human made changes in the coastline on the tidal hydrodynamics in Modaomen Estuary. It is important to understand this as the PRD coastline changes quickly and long-term environmental consequences are not well-studied. However, I have following comments/suggestions to authors before their manuscript can be accepted for publication.

- There is so much previous work done on tidal-river hydrodynamics. Authors should expand the introduction to have a reasonable and a thorough literature review. Currently they only cite the ones that focus on PRD. One seminal example of which is by Hoiting and Jay (2016) and references therein (**https://doi.org/10.1002/2015RG000507**). Then the authors should more explicitly explain the novelty of their work and the advantages of their model compared with those methods reported elsewhere.

- Next, they need to provide more details about their "quasi-three-dimensional river-tide-salt dynamic model". It would be helpful to learn more about the theoretical background (e.g., equations solved). Also, they need to discuss why they chose this model. Also, it is also not clear if model is validated at all. So, authors must present results from a validation exercise here as well. Similarly, they mention model parameter calibration in Section 2.3, however, this part does not mean much without prior description of these parameters. For instance, what is NSE and if RMSE of 0.92 is low or high? Finally, they can summarize the calibration results in a table.

- They need to expand into why they choose Mellor and Yamada turbulence model. What makes this turbulence model appropriate for this study?

- Tide data is fundamental to this study. Instead throwing a single RMSE number on Line 190, please also provide the comparison of modeled vs. measured tide time series at various locations along the ME.

- In addition to Figures 4 and 5, authors can include figures where they compare results quantitatively like relative difference of the flow velocities. Their discussion in Section 3.1 based on these figures are very qualitative and hard to convince the readers. On line 244 they say, "tide velocities in ME increased by 25%–30%, reaching 0.4–0.6 m/s.", however this is not apparent from the figures. Where did this somewhat dramatic increase occur specifically?

- When comparing flow velocities time series would be more useful. In addition to Figures 5 to 8, please show velocity comparisons from different locations along the ME and at various depths.

- Figure 6-7-8-9: Please indicate the location of the transect shown in these figures, where does it start and end?

- Section 3.2: Authors use only density stratification to explain the changes in hydrodynamics, but what about the changes in bathymetry. Pre-EROP and transition period bathymetry is very different from the present case. What is the impact of this on hydrodynamics in ME?

- Section 4.2: Pollutant modeling is not mentioned neither in the abstract nor in the introduction but suddenly appears on page 15. It is completely out-of-place and should be taken out.

- There is so much overlap between Section 4.1 and Chapter 5. I think Section 4.1 can benefit from more discussion about the physics behind the changes in the hydrodynamics due to human activity. Right now it just consists of merely the explanation of the model results.

Minor

- L55-L58: these two statements contradict with each other.

- L141 and Figure 3: What is the source of the bathymetry data? Is it available freely to other researchers?

- L145-L146: These stations are not identified in Figure 1.

- L177: These stations are not identified in Figure 1.

- L203: Why wind and wave affects are neglected? Provide an explanation.

- L251-L252: “Moreover, saltwater intrusion is enhanced due to the combined influence of human activities.”. This statement is not supported by any means in this section. How did you come up with this conclusion?

- Figures 4-5-6-7: The directions that the arrows indicate are not visible at all. Additionally, do these figures show the maximum current speeds or snapshot from a specific time step?

- Figures 4-5: Please add the coordinates to x and y axes of these.

- Figures 6-7: Sub-labels are missing.

- Figure 10: Figure is missing.