

Reviewer's Comments:

**Technical Revisions:**

Lines 6-9. Sentences can be combined or reworded shorter

Line 13 "...this key process that is creating subtle density differences that have the potential". What key process? The revision does not clearly answer the previous comment made. Possible change to "...understanding key processes related to salinity variations that cause density differences with potential to influence the..."

Line 24: Add period to end of sentence.

Line 25: 'Freshwater' in the ocean is NOT zero-salinity, this is confusing for the reader. Reword to emphasize that it is salinity less than the reference salinity.

Line 27: State the reference salinity here to be direct.

Line 61: "Sea Surface Salinity" remove capitalization.

Lines 126-127: Remove period after "psu" in equation (1) and start the sentence "Where" with uncapitalized 'w'.