

The authors have addressed most of my concerns. Particularly, they have made efforts to include a comparison between the observation and the assimilation models by showing seasonal nutrient fluxes at selected points of the three sections. Despite the differences between the assimilation model results and the observation results, the comparison still provides meaningful reference for reader who may be interested in using the model data. Therefore, I think this work deserves to be published after a minor revision.

I have only one minor question:

In the comparison between observed and assimilated nutrient fluxes, the authors selected one “key point” at each of the northern, western, and southern sections. Could the authors justify their choices of the “key points”? Are these points more representative than other points at each section or than the accumulated nutrient fluxes of each section?