

The Cryosphere Discuss., referee comment RC3
<https://doi.org/10.5194/tc-2021-262-RC3>, 2021
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Reply on RC2 (addendum to reviewer comment 2)

Anonymous Referee #2

Referee comment on "Layered seawater intrusion and melt under grounded ice" by
Alexander A. Robel et al., The Cryosphere Discuss.,
<https://doi.org/10.5194/tc-2021-262-RC3>, 2021

I am unable to amend my comment, so i hope that the authors and editor read this as well!

I realised that my General Comment #2 could be interpreted as saying, if under-ice melt rates were of similar magnitude to those seen in Kimura et al and Begeman et al they would be unimportant. This is my intention in any way. Under-ice sheet melting of a few m/a near the grounding line would be on the order of thinning rates in some of the fastest-thinning ice streams in Antarctica. However, this is a bit overshadowed by considering melt rates of 30-40 meters per year, which for reasons given in my original comment are difficult to imagine on physical grounds.