

Dear Ms. Dunmire and co-authors,

Thank you for the submission of your response to the Reviewers' comments. I am pleased to see a positive set of reviews, with some constructive suggestions that you have addressed in your initial response. The revised Figure 7 is a significant improvement.

I am content that the Revised Author Contribution Statement addresses the Reviewer's concerns, and adequately represents the workload division. However, it does not yet state who *wrote* the manuscript – please include this!

With regard to the additional Figure requested by Reviewer 2: I suggest that this is included in the Appendix.

I now request that you upload your updated manuscript including the changes detailed in your response. I also request a number of minor amendments (listed below) in addition to those suggested by the authors:

Figure 3: can the projection now used in the revised Fig. 7 also be used in Fig. 3?

I agree with the compromise text you suggest at the end of Section 4.4 (“*On an ice sheet wide scale, the amount of water stored in buried lakes is relatively small. Thus, these effects would mainly be relevant at local scales, particularly where large concentrations of buried lakes exist.*”). However, would it also be useful to add a sentence justifying your decision not to characterise the water depth?

In your amended paragraph copied below, I would suggest a brief rewrite to improve the structure by reducing the sentences beginning with superfluous conjunctive adverbs ('further' 'for example' 'additionally' 'in contrast'). The meaning will not change, but the readability may improve.

*Further, higher air temperatures in NW, NO, and NE Greenland from August - November, 2019 lead to correspondingly higher subsurface temperatures than in 2018 in these regions (Figure 7b). For example, at Site X in Figure 7, which is located in CW Greenland, the September 2018 and 2019 temperature anomalies are -0.71 °C and +0.98 °C, respectively and the average September subsurface temperature in the top 7 m of the snow column is 0.80 °C colder in 2019. In contrast, at Site Z in NE Greenland, the September 2018 and 2019 temperature anomalies are -2.54 °C and +4.04 °C, respectively, average September subsurface temperature in the top 7 m of the snow column is 3.18 °C warmer in 2019. Additionally, at Site Y located in NW Greenland, Figure...*

Thank you for your contribution to The Cryosphere, I look forward to reading your revised manuscript.

Kind regards,

Dr Liz Bagshaw