

We thank the reviewer for reading the m/s once more and providing some valuable further suggestions. Below please find our response. We also gave the m/s a final proof read and made some minor text edits for readability.

MAJOR ITEMS

1) *Ins 654 & 664: I still feel strongly that the -101 Gt/yr the authors add to their glacier mass change estimate should not be referred to in the text as a "revised estimate". It's fine to mention the discrepancy with the Gardner et al results (which is done), and to even discuss the case in which the -101 Gt/yr is assumed misappropriated, but to talk about it as a "revised estimate" is misleading in my opinion, since the results did not come out of the analysis directly. Likewise for the subsequent revision of the sub-surface storage estimate.*

RESPONSE: The referee is correct that these changed estimates are a result of interpretation rather than the analysis itself. Although we are not sure that 'revised' implies something other, we have changes this to 'alternative estimates' so that this might avoid any such misunderstanding.

2) *When I summed the values of the reported trends from Table 5, I got -602 Gt/yr, not -549 Gt/yr. Please correct.*

RESPONSE: The referee is correct, apologies for this. It has been revised.

OPTIONAL ITEMS

1) *In 16: change "reconcile" to merges, to be consistent with the title and my earlier comment regarding the interpretation of the word reconcile. Also change throughout document.*

RESPONSE: no problem, done.

2) *In 130: Can you provide a general range of values for this scale factor, so the readers have an idea of how large it is?*

RESPONSE: we have now included this (0.6-0.9).

3) *In 180: The discussion of the impoundment data needs some introduction/transition sentence(s). Also, the total trend amount of impounded water (Gt/yr or km³/yr) over the study period should also be listed.*

RESPONSE: A opening sentence has been added, and the combined annual increase (21 km³/y) is now mentioned.

4) *In 230: This sentence is unclear to me. How can a model-estimated change be more reliable than the actual storage change?*

RESPONSE: Indeed, but we meant that the model estimated storage change is more reliable than the model-estimated actual storage. We added the underlined words to clarify this.

5) *In 235: notation inconsistent for sigmas in eq 2 and In 235*

RESPONSE: Thank you for pointing this out, fixed it.

6) *In 421: believe this should be "GRGS"*

RESPONSE: Thank you for pointing this out, fixed it.