Dear Dr. Homa Kheyrollah Pour,

Thank you for your comments and for handling our manuscript. We have addressed your suggested and essential revisions below, with our responses in blue.

Suggested Revisions:

To add new discussion Section 4.7 and clarifications of some methodological aspects.

Our interpretation of this comment from Reviewer #1 was that they were acknowledging the changes we made rather than suggesting new revisions, as they said, "I appreciate new discussion Section 4.7 and clarifications of some methodological aspects".

Suggested Revisions:

195: The authors make the case here that supraglacial lakes are not as important in terms of area or change. I suggest discussing supraglacial lakes last of the main types in section 3.0 and 3.3.

Thank you for this suggestion. We considered this comment, but feel that the current structure provides the best presentation of our results.

235: The authors note, "There are 19 lakes (17 moraine-dammed, one bedrock-dammed, and one ice-dammed) with individual areas greater than 10 km^2, accounting for 288.7 km^2 (60%) of the total area growth from 1984–1988 to 2016–2019." These 19 lakes hence are the most critical to lake change area in Alaska. I would suggest providing a table indicating the specific characteristics of these 19 lakes, that may indicate shared characteristics. Please include elevation and if the lakes are coastal environment piedmont lobe terminus depression filled proglacial lakes.

We have added a table as suggested to our supplementary material (Table S1). In addition, we added relevant text summarizing this table:

L237-240: "Of these 19 lakes, 14 occupy piedmont lobe depressions (defined here as a basin which is not constrained by valley walls), and about half are found within a coastal plain environment, with four lakes located within 2 m of sea level."

Essential revisions:

Figure 6. This is an accurate figure, but visually does not convey the information in an easily identifiable fashion.

We have revised this figure by removing text, and improved clarity by adding a legend and a grid to help with interpretation.

Figure 9 X-axis needs additional unit labeling for accurate interpretation.

We added additional unit labels to aid in accurate interpretation.

Thank you again for all the helpful suggestions that have improved our manuscript.

Sincerely,

Brianna Rick, on behalf of the co-authors