Note to Editor regarding text changes in typeset version of manuscript 1638:

There have been multiple changes in the text (manuscript 1638) that are the result of the companion manuscript (1165) having been changed during the review process. The primary change in 1165 is that two closely-spaced deposits were originally treated as one complex deposit sequence (in 1165), but determined to be separate deposits in the companion paper (1638), whereas after the review process it switched to where the deposits were determined to be the result of separate events in 1165 (the result of a crustal earthquake – deposit I, followed by a deposit that resulted from a Cascadia earthquake – deposit H), and the companion manuscript (1638) must be adjusted accordingly. This makes, I think, for these manuscripts to be more easily understood.

Here are the changes that resulted from this adjustment

Original version: ‘The interpretation, based on deposit characteristics and timing, is that deposits H and I were deposited in response to shaking as a result of the 1873 CE Brookings earthquake’

Modified version: ‘The interpretation, based on deposit characteristics and timing, is that deposits H and I were deposited in response to shaking as a result of the 1873 CE Brookings earthquake which was interpreted by Morey et al. (2024) to be the result of two earthquakes: a crustal earthquake (deposit I) followed by a southern Cascadia megathrust earthquake (deposit H).’

Here I explain that deposits H and I are from separate earthquakes and that deposit I was the result of a crustal earthquake and deposit H was the result of a Cascadia megathrust earthquake, referencing the companion paper 1165.

Original version: ‘We then used the characteristics of deposits H and I, inferred to be the result of a subaerial landslide and subsequent delta failure from the 1873 CE Brookings earthquake, to identify other earthquakes of the same type in the downcore record. The characteristics of deposits H and I used here are the following:’

Modified version: ‘We then used the characteristics of deposit I, inferred to be the result of a subaerial landslide from the 1873 CE Brookings earthquake, to identify other earthquakes of the same type in the downcore record. The characteristics of deposit I used here are the following:’

Here I focus on deposit I as an example of type 2 deposits. If I used H and I that would be calling two different earthquakes the type 2 deposit, which manuscript 1165 demonstrates would be incorrect.

This comment appears to be the result of a misinterpretation of the placement of my note. It should refer to the paragraph starting on line 46 on page 6, not line 98 where the comment is placed. I didn’t place a note in the text at line 98.

Original version: ‘The characteristics of this deposit suggest higher-frequency (> 5 Hz) ground motions capable of causing subaerial slope failures resulting in a schist-derived turbidite (indicating a subaerial landslide), followed by light-colored sediment sourced from Slickear Creek (indicating a subaquatic delta failure, possibly with an influence from liquefaction). The deposit sequence is followed by a flood deposit (deposit G in Morey et al., 2024) with mixed composition that likely reflects the removal of post-seismic watershed sediment.’

Modified version: ‘The characteristics of this deposit suggest higher-frequency (> 5 Hz) ground motions capable of causing subaerial slope failures resulting in a schist-derived turbidite (indicating a subaerial landslide). The deposit sequence that includes deposits H and I is followed by a flood deposit (deposit G in Morey et al., 2024) with mixed composition that likely reflects the removal of post-seismic watershed sediment.’

Here I am removing the reference to the light-colored deposit H (because that is interpreted to be the result of a separate earthquake in Morey et al., 2024).

Original version: ‘None of the deposits similar to deposit I, however, are followed by a deposit

similar to deposit H (which has multiple pulses of sediment sourced from the Slickear Creek watershed in it).’

Modified version: ‘None of the deposits similar to deposit I, however, are followed by a deposit

similar to deposit H, supporting the interpretation that deposits H and I were the result of separate earthquakes.’

Here I removed the unnecessary comment in parentheses and add the comment that reinforces the interpretation from Morey et al., 2024 that deposits H and I are the result of separate earthquakes.

Original version: ‘Because deposit H is somewhat similar to other downcore deposits similar to deposit J, this seems to confirm that the 1873 CE Brookings earthquake had a subduction component.’

Modified version (slightly different from my comment in the first typeset version): ‘Because deposit H is similar to other downcore deposits similar to deposit J, this supports the interpretation that the 1873 CE Brookings earthquake was actually two earthquakes: a crustal earthquake immediately followed by a subduction earthquake.’

This is simply a more detailed way of saying the same thing, and more aligned with the interpretations in manuscript 1165.

Original paragraph to be removed: ‘This reinterpretation of type 2 deposits suggests that the pulses present in deposit H are unlikely to be the result of a crustal-earthquake sequence because it is composed of silt sourced from the Slickear Creek watershed (more than any other deposit in the historical portion of the record) and not derived from the schist bedrock surrounding the lake. This suggests that the pulses may actually be related to ground motion variability as a result of a southern Cascadia subduction earthquake, producing a tsunami that was not large enough to enter Bradley Lake.’

This paragraph was relevant when this manuscript described type 2 deposits as defined by the characteristics of deposits H and I. There is no reinterpretation of type 2 deposits in this revised version because manuscript 1165 identifies deposits H and I as the result of separate earthquakes.