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Hydrology and Earth System Sciences
Discussions

Interactive comment on "Technical Note: False low turbidity readings during high suspendedsediment concentrations" *by* Nicholas Voichick et al.

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Thank you for the comments and suggestions. They will result in an improved paper. Below are my responses to the all of the comments from Referee #1.

The word 'optical' will be put in the title.

The word 'optical' will also be added in the abstract to stress that the issue pertains to optical turbidity probes.

The sentences in lines 16-20 in the abstract will be changed to clarify the response from optical turbidity probes seen at low and high suspended-sediment concentrations, and

when false low turbidity readings may be seen.

In lines 32-33, the sentence will be clarified to explain why turbidity is not an absolute measure of water clarity.

In section 2.1 (line 104 in Referee #1 comments), the type of acoustical instrument and the methods used for collecting the suspended-sediment samples will be added. A reference for the suspended-sediment sample collection methods will also be added. Because this is a short technical note, no other details pertaining to the acoustical data collection or suspended-sediment sampling will be included, although a thorough description can be obtained from the listed references.

A legend will be included with Figure 4.

In the 2nd paragraph of section 4 (lines 174-175 in Referee #1 comments), a more thorough discussion will be presented on how sediment characteristics and instrument properties affect turbidity.

In the final paragraph of section 4 (lines 200-201 in Referee #1 comments), a sentence will be added explaining why false low turbidity would likely show a pattern of turbidity within the valid measurement range of the probe bracketed by pegged turbidity.

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